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Educational News and Editorial Comment

ADVANCING PUPILS MORE RAPIDLY

In spite of the fact that the school system of Kansas City, Missouri, has demonstrated for a generation that pupils can be satisfactorily educated without an eighth grade in the elementary school, the schools in the northern part of the United States have, for the most part, refused to abandon the practice, established in the middle of the last century, of organizing elementary schools with eight grades. After the most deliberate consideration of the curriculum, the laboratory schools of the University of Chicago were reorganized almost a decade ago in such a way as to eliminate the eighth grade. The experiment has been subjected to the most rigid scientific tests and has proved to be an unqualified success, but the schools of the northern states have not been affected by the demonstration. The public elementary schools of a number of the southern states have been seven-year schools from the date of their first organization after the Civil War. The short elementary school in the South is doubtless to be accounted for on economic grounds, and its success has been questioned by those who are accustomed to the eight-year type of organization.

Much interest attaches to the experiment which is being launched

in Salt Lake City, Utah. The public school system of that city is reconstructing its curriculum for the explicit purpose of advancing pupils more rapidly than has been the practice. The following paragraphs explain the reorganization which is going on. The first paragraph is from a report made by Superintendent George N. Child; the remaining paragraphs are from a report to the superintendent made by Assistant Superintendent George A. Eaton.

The school system of Salt Lake City has, for the past several years, been gradually evolving from the old, well-established plan of eight years in the elementary school and four years in the high school, to an organization known generally as the 6-3-3 plan, composed of an elementary school of six years, a junior high school of three years, and a senior high school of three years. As this movement has progressed and school organizations and curricula have been studied in different parts of the country, we are convinced that at least one year of time in the school life of the child from the kindergarten to graduation from high school should and can be eliminated in the case of the majority. At the present time, therefore, our plan of organization calls first for a year in the kindergarten, composed of children who are five years of age, to be followed by six years in the elementary school, three years in the junior high school, and two years in the senior high school.

From our recent conversations, I know how anxious you are to put into effect a reorganized curriculum looking to the completion of the senior high school course at the end of the eleventh year. I have full confidence that you will be successful in this, for in Salt Lake City we are situated more advantageously to bring about this reorganization than are many places where the experiment has already been successfully worked out.

May I state here my reasons for believing the move to be an eminently practical one. The plan would not involve a curtailment of the content of the present high-school curriculum or even of the time allotted to strictly high-school subjects, which would be four years as heretofore. It would mean, however, that the year of the present eighth grade would be utilized wholly for high-school work where formerly but a portion of the time was so used. For this reason, the work of the seventh grade should be strengthened in the direction of providing an intensive final drill in the fundamentals as preparation for entering upon the high-school course.

Revision of the content of the seventh grade and the strengthening of the eighth grade by the inclusion of such high-school work as can profitably be undertaken at this time are the only necessary steps so far as curriculum is concerned. As to teaching personnel, it would imply that all teachers above the seventh grade should have the scholastic qualifications and professional training of the high-school teacher. This latter condition is, with few exceptions, realized in our teaching force at the present time. . . . .

An examination of the scholastic records of our graduates for several years shows that a small number actually completed the course one year earlier than the regular time while a large number might have done so had they wished, since they had an adequate excess of credits and this, too, without any readjustment of the course of study. Moreover, these pupils always stand highest in their work and furnish the material which the colleges are seeking.

When once the plan of the eleven-year course is in operation, there will arise the question of the twelfth year. Shall it be done away with, or shall it be organized for junior-college work? The latter seems the logical conclusion for many reasons, which need not, however, be discussed at this time. Suffice it to say that the eleven-year plan is feasible from every point of view. It is already in successful operation in several large cities of this country, and the idea is rapidly spreading. The equivalent of the plan has always been in vogue in the most progressive European countries. It means a saving of time and money for the pupil and his parents. In community expense, it would result in the saving of a whole year at an age when per capita cost of instruction is the highest.

CONTROL OF TEACHER-TRAINING INSTITUTIONS

The state of New Jersey has been engaged in a vigorous discussion of the relation of the teacher-training institutions of that state to the state department of education. Heretofore, the teacher-training institutions have been independent in their organization. The legislature recently passed a law the essential portions of which are as follows:

1. There shall henceforth be vested in the commissioner of education the control and management of all state institutions maintained wholly or in part by state appropriations, whose purpose and object is the training of teachers for the public schools of the state; *provided, no plans or policies concerning such state institutions shall be put into operation until approved by the state board of education.* Such state institutions shall include the state normal schools and the summer schools for the training of public-school teachers, the establishment and maintenance of which are provided for in the act and a supplement to the act to which this act is a supplement.

2. The commissioner of education shall, by and with the approval of the state board of education, appoint such principals, expert assistants, and other persons as he may from time to time deem necessary to assist him in the proper control and management of the said state institutions for teacher-training.

This action raises an important general question which is under discussion in states other than New Jersey. The question is, What devices are to be adopted in order to rescue the teacher-training institutions from the isolation and inadequate organization from

which they very commonly suffer? Normal schools have been so completely out of contact with higher education and so independent in their government, in the character of their faculties, and in their curriculums that they are the least standardized institutions, and in many respects the least satisfactory factors, in the American school system. Lately, through their local and national organizations, they have been attempting to set up standards. There has been long and serious delay in the process. The last session of the American Association of Teachers Colleges witnessed another and only partly successful effort to establish standards. In general, the heads of teachers' colleges are unwilling to recognize the necessity of conforming to any principles except those dictated by their own judgments; they are slow to reach agreements. The action of the New Jersey legislature ought to serve as a warning to presidents and faculties of normal schools and teachers' colleges. Superintendents of schools and members of boards of education who employ teachers and even the average citizen who comes into contact with the products of normal schools through his children are not satisfied with present conditions. If the teacher-training institutions do not standardize themselves and do it thoroughly, outside agencies will be put in charge by action of the state legislatures.

ACCURACY AS AN EDUCATIONAL END

Superintendent William McAndrew insists that pupils shall prove every result that they secure in solving problems in arithmetic. He has encountered some opposition from those who think that absolute accuracy is beyond the powers of pupils. Statements which he has made regarding his attitude in the matter and his observations in the Chicago schools are of more than local interest. The following paragraphs are quoted from *Mid-Year Prospectus*, a document issued by Superintendent McAndrew to his division superintendents.

Accuracy and reliability.—You have increased the value of exercises in arithmetic. Our canvass of taxpayers established the fact that a large number of intelligent citizens are dissatisfied with the output of the schools in the matter of reliability. Over and again I hear, "Not only do the children miscalculate and misspell, but they show no chagrin when their errors are discovered." This canvass refers to children who left school before you concentrated on curing

these two defects. You have made a fine start. You have made clear that principals are to have their teachers discover the inaccurate computists and poor spellers, to analyze the specific defects, and to apply remedial measures. You have established in school, as has long been the rule in first-class organizations out of school, that every computist must reach a correct result and must himself know by his own proof that the "answer" is right. You need to investigate and correct in many schools a wasteful situation in which the teacher allows the rapid pupils who have worked and proved their problems to have nothing to do while waiting idly for the slow child who is hunting for his error. The notion that all the members of a class must be doing identical things simultaneously was exploded years ago. Set a proper period for arithmetic. Pass out enough work for the most rapid and see that each one does an amount adapted to his power, each one taking all the time necessary to do the work correctly, always, every time, and, by some effective means or other, show that the correct completion is as essential as digestion is to eating.

Negations.—During the year you have heard old men say that you can't demand perfection of human beings. This is the cheapest kind of nonsense. I got perfect courtesy in the school I visited yesterday; I heard children spell words perfectly; little tots of seven added 5 and 3 and secured a perfect answer. You often hear perfect music, eat perfect meals, read perfect poems. The human heart hungers for perfection. To satisfy it in many school subjects is not only not impossible but nothing else will do. The Good Book doesn't mince words about it but says, "Be thou therefore perfect." The longer anybody delays himself by objecting, the more ashamed he is when he hears his "can't be done" drowned out by the hurrahs of those who are doing it. You have here a form of holdback that is silly and childish, a tendency of some light-minded person to turn into a joke certain incompetences for which they should be ashamed. You find, for instance, stupidities in the teaching of arithmetic, and you address yourself to their correction; you show how they may be removed. A few weeks later you attend a school dinner at which some would-be smart poet ridicules your suggestions while the auditors vociferously applaud. It has the same effect as church members telling profane stories about ministers: implies that the poetaster and his audience are shirkers, content with poor workmanship and unable to take this most serious of all callings seriously. These are the folks who wreck salary adjustments and referendums. They set the pattern for the contempt which still hovers over teaching while the professionally-minded public servants are having their own work unnecessarily increased in their effort to give it dignity, value, and adequate pay.

Motive.—In so many classes has arithmetic become an enjoyable exercise in hitting the mark that you can prove that the motives of self-reliance, trustworthiness, persistence, and enjoyment of power are essential in arithmetic work. You are justified in requiring these motives to be plainly evident in every arithmetic lesson in the public schools of your division. Where these inspiring motives are absent and the barren formalism of arithmetic is evident,

the principal should be put to repairing the defect. The increase of time or of home work for arithmetic, the fatiguing of children by this subject, is unnecessary and a sign of poor teaching. I have heard reports of these defects but have not found them in any of the numerous classes I have visited. On the contrary, I have found the work decidedly entertaining to the children. If you can secure general enjoyment in getting right results in arithmetic and corresponding dissatisfaction with a wrong one, you have hit the right motive.

USEFUL HISTORY OF EDUCATION

It is very stimulating to find a state department of education publishing and distributing items of educational history which contribute to the understanding of present-day situations. The State Board of Education of Connecticut has issued a pamphlet entitled, *School Consolidation in Connecticut*, which is a striking example of what the history of education should contain. Three paragraphs must suffice as illustrations.

By 1712 extensions of settlements had been made beyond the limits of the early fortification boundaries. Such extensions were frequent in the subsequent years. In 1712 such outlying settlements or parishes were made school districts, subdivisions of, and still subordinate to, their towns, but were, in part, given control of their schools. Such parishes were often situated at some distance from the parent town. Means of communication were poor. It was only natural that districts should have much to say about the control of their own local affairs, such as schools. In fact, as time went on, a large number of these societies or parishes were organized as towns.

Subsequent acts up to 1795 point to the gradually increasing independence of these parishes, especially in the matter of schools. In 1798 the towns were definitely supplanted by the school societies for the control of education. These societies were in some cases coterminous with the towns, in other cases smaller in size, and occasionally even composed of fractional parts of two or more towns. Such societies were empowered to divide themselves into districts and appoint committees in the same. Henry Barnard testified, in his account of common schools in Connecticut, to the disastrous results of this arrangement. He further assigned as causes for such results the lack of obligation on the part of societies to (1) maintain schools of different grades and (2) keep the schools open for a specified period, such as eight months.

The period from 1795 to 1856 was characterized by a total lack of town control in education. School control in this period was by societies and not by the separate districts which could be formed, although not as corporate entities.

When one is given this insight into the reasons for the extreme subdivision of the educational system of the state, one is more

readily persuaded of the wisdom of moving in the direction of consolidation.

If writers of the history of education had produced more material of this type and had paid less attention to speculative philosophy, perhaps the history of education would not have suffered so complete an eclipse.

STANDARDS IN ARITHMETIC

The State Department of Education of Maryland enlisted the co-operation of all the teachers in the state in determining the habits and abilities in arithmetic which should be achieved in each grade. The result of this co-operative effort is the following series of statements.

First Grade

1. Habit of accuracy and order.
2. Ability to count orally to 100 by 1's, 2's, 5's, and 10's.
3. Ability to read and write the numbers up to 100.
4. Ability to recognize, without counting, groups of two, three, four, and five objects.
5. Ability to divide groups of objects up to 12 by 2's, 3's, and 4's.
6. Control of the thirty easy addition combinations.
7. Ability to add single columns of two, three, and four figures whose sums do not exceed 10 or 12.
8. Ability to use and understand the expression "one-half."
9. Ability to recognize the relation between quantity, size, and value (suggestion: inch and foot, pint and quart, nickel and dime, day and week, month and year, dozen and half-dozen).
10. Ability to frame original problems.

Second Grade

1. Habit of neat and accurate work.
2. Ability to count by 3's to 36 and by 4's to 48.
3. Ability to read and write Arabic numbers to 1,000 and Roman numbers to XII.
4. Ability to tell time.
5. Automatic control over the one hundred addition and the one hundred subtraction facts.
6. Ability to work simple examples in addition three digits high and two wide without "carrying" and with "carrying" and to add two digits high and three wide without "carrying."
7. Ability to subtract without "borrowing."
8. Ability to use a one-figure multiplier (2, 3, or 5 only) without "carrying" and also with "carrying" when the multiplicand is limited to two digits.

9. Ability to use in conversation such terms as "add," "subtract," "take away," "answer," "less," and "times."

10. Ability to give accurately and quickly the multiplication and division facts of the tables of 2's, 3's, 4's, 5's, and 10's.

11. Ability to think through a simple one-step problem and to indicate the process employed.

12. Ability to frame original problems involving computations and experiences emphasized in the work of the grade.

13. Ability to divide by $\frac{1}{2}$ the numbers from 2 to 24 and by $\frac{1}{3}$ the numbers from 3 to 36.

14. Ability to use in computation and simple problems simple facts of the standard measures (suggestion: cent, nickel, dime; pint, quart; inch, foot; day, week).

15. Ability to manipulate United States money to 99 cents.

Third Grade

1. Habit of checking all work.

2. Accurate control of fundamental facts in all four processes (not including long division).

3. Skill in higher decade addition.

4. Ability to read and write Arabic numbers to 10,000 and Roman numbers to L.

5. Ability to give fractional parts of numbers, using $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$, and $\frac{1}{10}$.

6. Ability to solve simple one-step and two-step problems in the four fundamental processes.

7. Ability to frame original problems involving computations and experiences emphasized in the work of the grade.

8. Ability to use correctly such terms as "addition," "subtraction," "plus," "minus," "multiply," "divide," "multiplication," "division," "sum," "difference," "minuend," "subtrahend," "multiplicand," "multiplier," "product," "dividend," "divisor," "quotient," and "remainder."

9. Ability to give accurately and quickly the multiplication and division facts of the tables of 6's, 7's, 8's, and 9's.

10. Ability to use a two-figure multiplier.

11. Ability to work difficult subtraction—all steps of difficulty.

12. Ability to work short-division examples without "carrying" and with "carrying."

13. Ability to manipulate United States money to $100 (addition, subtraction, multiplication, short division).

14. Ability to use in computation and in simple problems simple facts of the standard measures (cent, nickel, dime, quarter, dollar; pint, quart, gallon; inch, foot, yard; week, month, year; peck, bushel).

15. Ability to attain, or at least to approximate, the standards set up in standardized tests of both the abstract and the reasoning type.

Fourth Grade

1. Habit of estimating answers and approximating results.

2. Habit of scanning the answer to determine whether it is a reasonable answer.

3. Increased skill in the use of all fundamental processes through division with occasional three-place divisors.

4. Ability to read and write Arabic numbers to 1,000,000 and Roman numbers through C.

5. Mastery of short and long division with occasional simple three-place divisors.

6. Ability to give simple fractional equivalents and to do simple examples in addition and subtraction of common fractions of the same denomination or where the common denominator can be found by inspection.

7. Ability to use and explain the terms "fractions," "numerator," and "denominator."

8. Ability to use in simple problems the standard measures involving United States money, units of time, of avoirdupois weight, and of liquid, dry, and linear measures.

9. Ability to solve independently simple one-step and two-step problems and to give a simple explanation of the work.

10. Ability to make, read, and interpret simple graphs.

11. Ability to frame original problems involving computations and experiences emphasized in the work of the grade.

12. Ability to attain, or at least to approximate, the standards set up in standardized tests of both the abstract and the reasoning type.

Fifth Grade

1. Habit of thinking through a problem before beginning the computations involved in its solution.

2. Ability to estimate the results approximately.

3. Habit of verifying both thinking and computation.

4. Ability to work accurately in all processes with practical common fractions and with decimal fractions through thousandths.

5. Ability to work with both integers and fractions accurately and with reasonable speed.

6. Ability to use denominate numbers for all ordinary purposes.

7. Ability to use correctly the terms "common denominator," "factor," "multiple," "reciprocal," "improper fraction," "lowest terms," and "mixed number."

8. Ability to solve one-step, two-step, and three-step problems.

9. Increased ability in oral analysis of problems, in working problems without numbers, in framing original problems, and in labeling economically.

10. Ability to find the average of any number of like quantities.

11. Ability to know and use the aliquot parts of $1 and 100 in practical problems (as 12½c is ⅛ of $1).

12. Ability to attain, or at least to approximate, the standards set up in standardized tests of both the abstract and the reasoning type.

Sixth Grade

1. Ability to solve problems involving several steps, using integers, fractions, and decimals.

2. Ability to solve problems involving simple percentage in commission, profit and loss, and commercial discount.

3. Ability to compute simple interest.

4. Ability to change common fractions to decimal fractions and decimals to common fractions and to express decimals as percentages.

5. Ability to read, write, and understand any practical Arabic and Roman numbers, common fractions, decimal fractions, and denominate numbers; increased ability to work with fractional equivalents, such as 8⅓, 12½, 16⅔, 20, 25, and 33⅓.

6. Ability to make a simple budget of time and expenses and to understand simple personal accounts.

7. Ability to explain the kind of service rendered by a bank or a post-office.

8. Ability to draw to scale.

9. Ability to frame original problems involving computations and experiences emphasized in the work of the grade.

10. Ability to attain, or at least to approximate, the standards set up in standardized tests of both the abstract and the reasoning type.

Seventh Grade

1. Ability to solve problems involving several steps, using integers, fractions, decimals, and percentage.

2. Ability to interpret the principles and uses of the problems that are met in certain selected business practices and to solve such problems, as, for example, buying and paying for goods, the use of sales slips, bills, receipts, catalogue lists, money orders, telegraph orders, checks, and drafts.

3. Ability to make and to solve problems from newspaper quotations and from civic and business life.

4. Ability to read and construct practical, common graph forms.

5. Ability to compute areas of triangles, rectangles, and circles.

6. Ability to compute volumes of rectangular figures and cylinders based on concrete situations.

7. Ability to solve problems by equations.

8. Ability to attain, or at least to approximate, the standards set up in standardized tests of both the abstract and the reasoning type.

NEED OF PRESCHOOL MEDICAL ATTENTION

A recent investigation made in the schools of England showed that, although children in that country enter school at an early age, one-half of the pupils who breathe through their mouths, one-third of those who are hard of hearing, and one-fourth of those who suffer from enlarged tonsils had these defects before they entered school. The need of preschool medical attention was clearly shown.

THE FUTILITY OF UNGUIDED STUDY

There is much vague thinking about pupil freedom and pupil initiative in school work, about self-discovered projects and pupil interests. The advocates of unlimited freedom and of unorganized curriculums not infrequently cite Professor John Dewey as the originator of the theory which they defend. It is true that Dewey, like all progressive thinkers, has made war on formalism in the schools. It is true that he has favored any readjustment which will lead to genuine thinking on the part of pupils. That he has advocated the complete surrender of teachers to the caprice of the pupils' transient interests is not true and never has been true. When extremists try to justify their vagaries and loose practices by pointing to Dewey as their authority, they merely reveal their lack of ability to understand the teachings of a great leader.

Dewey has recently written in perfectly clear terms his views on the whole matter. The following paragraphs are quoted from an article entitled, "Individuality and Experience," which he contributed to the January issue of the *Journal of the Barnes Foundation.*

> This suggests that the proponents of freedom are in a false position as well as the would-be masters and dictators. There is a present tendency in so-called advanced schools of educational thought (by no means confined to art classes like those of Cizek) to say, in effect, let us surround pupils with certain materials, tools, appliances, etc., and then let pupils respond to these things according to their own desires. Above all, let us not suggest any end or plan to the students; let us not suggest to them what they shall do, for that is an unwarranted trespass upon their sacred intellectual individuality, since the essence of such individuality is to set up ends and aims.
>
> Now, such a method is really stupid, for it attempts the impossible, which is always stupid; and it misconceives the conditions of independent thinking.

There are a multitude of ways of reacting to surrounding conditions, and, without some guidance from experience, these reactions are almost sure to be casual, sporadic, and ultimately fatiguing, accompanied by nervous strain. Since the teacher has presumably a greater background of experience, there is the same presumption of the right of a teacher to make suggestions as to what to do as there is on the part of the head carpenter to suggest to apprentices something of what they are to do. Moreover, the theory literally carried out would be obliged to banish all artificial materials, tools, and appliances. Being the product of the skill, thought, and matured experience of others, they would also, by the theory, "interfere" with personal freedom.

Moreover, when the child proposes or suggests what to do, some consequence to be attained, where is the suggestion supposed to spring from? There is no spontaneous germination in the mental life. If he does not get the suggestion from the teacher, he gets it from somebody or something in the home or the street or from what some more vigorous fellow pupil is doing. Hence the chances are great of its being a passing and superficial suggestion, without much depth and range—in other words, not specially conducive to the developing of freedom. If the teacher is really a teacher, and not just a master or "authority," he should know enough about his pupils, their needs, experiences, degrees of skill and knowledge, etc., to be able (not to dictate aims and plans) to share in a discussion regarding what is to be done and be as free to make suggestions as anyone else. (The implication that the teacher is the one and only person who has no "individuality" or "freedom" to "express" would be funny if it were not often so sad in its outworkings.) And his contribution, given the conditions stated, will presumably do more to getting something started which will really secure and increase the development of strictly individual capacities than will suggestions springing from uncontrolled haphazard sources.

The point is also worth dwelling upon that the method of leaving the response entirely to pupils, the teacher supplying, in the language of the day, only the "stimuli," misconceives the nature of thinking. Any so-called "end" or "aim" or "project" which the average immature person can suggest in advance is likely to be highly vague and unformed, a mere outline sketch, not a suggestion of a definite result or consequence but rather a gesture which roughly indicates a field within which activities might be carried on. It hardly represents thought at all: it is a suggestion. The real intellectual shaping of the "end" or purpose comes during and because of the operations subsequently performed. This is as true of the suggestion which proceeds from the teacher as of those which "spontaneously" spring from the pupils, so that the former does not restrict thought. The advantage on the side of the teacher—if he or she has any business to be in that position—is the greater probability that it will be a suggestion which will permit and require thought in the subsequent activity which builds up a clear and organized conception of an end.

THE VISITING TEACHER'S JOB

EUSTACE BROOM AND BERTHA TROWBRIDGE
Francis W. Parker School, San Diego, California

The relations between parents and the teachers of the public schools of a century ago were very close. Frequently the teacher boarded and lodged at the homes of the citizens whose children he instructed. Not infrequently the school teacher found various ways of rendering himself both useful and agreeable; for example, he occasionally assisted in the lighter labors about the home. The social life of the community, too, was centered largely in the school. These contacts gave to the teacher an intimate knowledge of the home life of his pupils and to the parents a close acquaintance with the affairs and the conduct of the school, which aided materially in approaching maximum educational results in the light of the school procedure of the period.

During the second quarter of the Nineteenth Century conditions in the home and in the school began to undergo material changes. "The drift of population to the cities, the high specialization of industries, and the development of rapid transit, making it possible to deliver merchandise to the remotest parts of the country, have totally changed the organization of home life even in rural communities. . . . . The creative process has been taken from the homes and lodged in machines and factories."[1] The expansion of public education conformed to these industrial transitions, and the public schools have become powerful in both urban and rural communities. As the school grew, however, the social relations between the home and the school disappeared, until in the present complicated school system the parents and the teachers of a child rarely meet. "As a result, teachers feel a lack of co-operation and sympathy on the part of the parents of their pupils; while parents come to regard the school as an outside institution, provided for and protected by law, which is planned and administered by strangers, the board of education, the

[1] M. E. Moore, *Parent, Teacher, and School*, p. 31. New York: Macmillan Co., 1923.

superintendent of schools and his assistants, and the teachers, without reference to home life and home needs."[1] An unfortunate condition, based on a lack of harmony between parents and teachers, frequently results. This tends to create more or less acute crises in school administration, hampering an orderly and harmonious adjustment of the educational system to the needs of the community.

Parents and educators have evolved a number of agencies for the purpose of promoting close co-operation between the home and the school: the parent-teacher association; the school-improvement association; the home-and-school league; the school-publicity campaign, including exhibits of school products; the effort to secure school visitation by parents; and the visiting teacher. Each has been successful in supplying, in part at least, relief for the ills which it was designed to cure. In the present discussion we are interested only in the last-named agency for securing parent-teacher co-operation, the visiting teacher.

The visiting teacher may be defined as a person, intermediate between the teacher on the one hand and the social worker on the other, whose business or occupation in education is to assist in correcting abuses affecting children in the home and in the school. Indeed, the visiting teacher has been facetiously characterized as the "missing link between the home and the school." Such a school officer, because of training, special personal qualifications, specialization of functions, and more and better home visitation, can develop a technique of social-case work not possible to the classroom teacher or to most principals.

The visiting-teacher movement started independently in New York in 1906 and in Boston in 1907.

Hartley House and Greenwich House in New York City assigned two visitors to three school districts. The work was under the supervision of representatives from these two settlements and from Richmond Hill House and College Settlement.

One of the leading spirits of this new movement was Miss Mary Marot, a teacher who for many years had been interested in the social aspects of education and the opportunities for educational work of far-reaching consequence through the social outlook of the school. While a resident of Hartley House, she

[1] M. E. Broom, "The Parent-Teacher Association with Specific Reference to Illinois High Schools," p. 12. Unpublished Master's thesis, University of Illinois, 1924.

undertook to study the educational needs of some settlement children and to bring about closer co-operation between the home and the school in their behalf. The Public Education Association became interested in the movement in January, 1907, when the Visiting Teacher Committee, at its request, became a committee of the Public Education Association. The constant insistence upon her (Miss Marot's) idea has been one of the dominant policies of the visiting-teacher staff ever since. In the following October (1907) the Public Education Association employed Miss Jane Day as a visiting teacher. For some time Miss Day had been working with Miss Julia Richman, the first woman district superintendent of schools in New York City, and both had seen the need of the schools to know more about the environmental life of the children if the schools were to succeed in realizing adequately their educational ideals. . . . .

Boston has had a different type of development, although the social-service motive was dominant in the beginning. In November, 1907, the Woman's Education Association established a home and school visitor in the Winthrop School for the following reasons: "Lack of understanding between home and school often results in loss, sometimes in serious injustice, to the child, but under present conditions it is difficult for busy mothers to visit school, and the large-sized classes make it almost impossible for teachers to know the homes. To meet this difficulty a subcommittee of the Woman's Education Association has employed a social worker in the Winthrop School district, and she has attempted, by working in both home and school, to bring about greater harmony between the two and so make more effective the education of the child."[1]

The visiting-teacher idea met with little approbation at first, and the movement did not begin to develop satisfactorily until about 1914. Projects are now being carried on in approximately sixty of the larger city systems under the direction of school-district boards of education, for demonstration purposes in selected schools in thirty communities of various sizes by the National Committee of Visiting Teachers, and in certain centers with the support of private funds. In each of the thirty experimental projects carried on by the National Committee of Visiting Teachers, the visiting teacher deals with approximately two thousand pupils. The Francis W. Parker School, San Diego, California, is the only private school which has added a visiting teacher to its staff. This school is of the small progressive type, and those in charge are aware of the necessity of close co-operation between the home and the school.

The visiting-teacher movement has not been confined to districts where economic pressure is the greatest factor threatening the wel-

[1] Julius John Oppenheimer, *The Visiting Teacher Movement*, pp. 1, 3. New York: Joint Committee on Methods of Preventing Delinquency, 1924.

fare of the children of the community. This is as it should be. Students interested in seeking solutions to problems of child welfare have long been cognizant of the fact that even the homes of great wealth frequently produce undernourished and maladjusted children.

It is the duty of the visiting teacher to interpret the school to the home by making clear to parents not only marks and ratings but also the educational ideals of the school, by securing adjustments—mental, physical, or social—for the child who is a misfit, and by securing the co-operation of the parents in giving the child a well-rounded mental, physical, and social development. This function of the visiting teacher may be shown very well by a few illustrations.

Mary may come home troubled about her history. The history teacher no longer teaches mere facts or dates of past events, for he is interested in getting his pupils to discover social problems, past or present, and to see that the facts of life in themselves should arouse some reaction, if only curiosity. He has turned his classroom into a laboratory for social research. Mary and her mother are both disturbed, but, if the visiting teacher has been successful in establishing contacts, Mary's mother knows that she can go to the visiting teacher and find out just what the history teacher aims to do. Parent and visiting teacher can talk freely about the history department, and perhaps the history instructor may be requested to present in detail the new methods and ideals of his department. When the parent understands the aim of the history teacher, Mary's troubles are almost over. She feels a harmonious spirit between home and school, a natural outgrowth of team work between parents and teachers. Soon her sense of security brings first success and then joy, instead of failure, in the history course.

James may be twelve years of age mentally but only eight or ten years of age physically and socially. If he is placed with a group of pupils who have similar academic attainments, he is physically and socially a misfit. The visiting teacher will discover the discrepancy and, through co-operation with the classroom teacher, will succeed in giving the boy an enriched curriculum so that academically he is busy and happy while at the same time he is associated with pupils who are at approximately the same stage of physical and social advancement.

John may suffer from headaches and other ailments which often keep him away from school for part of a day at least. His teacher or the attendance officer reports this fact to the visiting teacher, who calls at John's home and becomes acquainted with the family and learns the conditions of the home. If John's mother is aware of his loss in school work caused by irregular attendance, she will often urge him to get up a little earlier in the morning even though he has a slight headache. Sometimes it is possible for the visiting teacher to arrange John's schedule so that his early morning classes are devoted to work interesting to him. She may be able to find some special interest which he has and offer an opportunity for work along that line, thus giving the boy a more lively interest in school and incidentally bringing him to school more regularly. Sometimes it is possible for the visiting teacher to find the source of a physical ailment, such as defective eyes or ears, and report it to the home for corrective treatment with a view to achieving a permanent cure.

The visiting teacher must also interpret the home to the school. Often the parent is sincerely working in one direction and the school in another. What is the effect of this on the child, who concerns himself not at all with the aims of the school and of the home but who is trying hard to meet life as it comes to him? How can he meet life squarely when it comes to him from many directions at the same time? Here the visiting teacher must step in and, by bringing the parent into the school and as much of the school into the home as possible, help the child to feel that, after all, the world is not at cross-purposes but that it is a pleasant place where he can be really happy in just living, whether that living happens to be in the school or in the home. This result may be accomplished only when both the home and the school are "constant" and understand each other.

Frequently parents fail to provide an environment of happiness in the home. There may be depression for many reasons, causing depression in the "school child" as well as in the "home child." There are few children who do not sense sadness, depression, or lack of congeniality and understanding in the home and reflect it in their emotional life both at home and at school. Unless the school understands the situation through some agency, preferably the visiting teacher, the child may suffer a great deal through being misunderstood in

both places. Parents who are uncongenial may never have quarreled in their child's presence and may never have told him their troubles, but they have established an environment about him which is inhibiting his normal development. He is merely reflecting their depression even though he may not know what is the matter with him. It may be reflected in the child as extreme nervousness, cruelty to younger children, pugnacity, or vicious mischief.

Adolescence also brings many problems to the visiting teacher. Many children respond to the adolescent drive in ways of which society does not approve. They rebel at society's conventions, and, unless they have many outlets of energy, they may easily fall into traps which will make later life unhappy. If the girls can go to the visiting teacher and talk frankly about their "crushes" and their love affairs, they are not as likely to feel that they are committing a crime, and they can be led through these first affairs with comparative ease. Contacts can be made for them in clubs and recreational centers where there are outlets for creative energy and plenty of activity to balance the inner drive of the adolescent. The boys can be given opportunities to join clubs, to engage in athletics, and to enter social activities so that they, too, are satisfied and feel that "life is so full of a number of things" that they are "as happy as kings." The visiting teacher must be a "good sport" and must not be too busy to act as chaperon when an unexpected party is scheduled.

In addition to the problems suggested, there is a type of problem always present, the disciplinary case. It has been said by a number of authorities that the so-called "bad boy" should be treated and not punished. In extreme cases this implies segregation during treatment, but few extreme cases are found. The visiting teacher must work with the classroom teacher in diagnosing the case and in developing a system of treatment for the boy. She must help the classroom teacher in the administration of the treatment. She must work with the parents in the treatment of the case as well as in the investigation and diagnosis. When the visiting teacher is really successful, she secures the co-operation of the parents, the school, and the child and, when necessary, brings in an outside agency. The writers are inclined to believe that there are no boys or girls who are "bad" by

nature but rather that there are boys and girls who are suffering from what the community calls "badness" because they cannot comply with the conventions of the community. The failure to comply may be traced to some accident or series of accidents or to an environmental condition reacting against a normal development in the child. This theory does not relate to children who are subnormal mentally. The inability of "bad" children to react normally results in misdirected and misapplied energy. This condition is not the fault of the school or of the child, but it is the business of the school to find out why the child's energies are not properly directed and given sufficient outlet. He may not have an opportunity to create with his hands and thus to help balance his academic work, which often is just a pouring-in of information upon the pupil. The visiting teacher may find in such a case that only a change in academic courses is needed to offer the necessary outlets for the child.

The preceding discussion pertaining to adjusting the child to his environment suggests the problem of harmonizing the special abilities or disabilities of a pupil with the ambitions of the child or his parents for his future career. A parent often demands from his child gratification of his own desires for a profession, with little or no consideration of the child's ability in the direction of the parent's choice. If parents could only look squarely on the effect that constant failure has on an individual, they would perhaps think farther before they demand that Tom shall be a lawyer when Tom's whole being is demanding that he shall be a doctor or a craftsman or a manufacturer of brass. We have been prone to feel that academic professions are more dignified, but, if a child's interests and abilities urge him into craftsmanship, has any parent or teacher the right to insist on a professional career for the child and thereby cause him to meet failure at every turn in life just because the parent-chosen or teacher-chosen profession may seem more dignified? How can such a child ever become a well-poised, happy, and efficient member of society? It is the business of the visiting teacher, working with the child, the school, and the parents, to see that the child has a variety of outlets and opportunities so that, when he is ready to choose a profession, he will know something of his own capacities, which more or less determine his likes and dislikes. She must persuade the parents to leave the

boy perfectly free to choose for himself with no lack of sympathy and no feeling of disappointment on their part.

There is a certain amount of routine and office detail in the work of the visiting teacher. There is, for example, the matter of diagnosis based on intelligence and achievement tests. In the small school the visiting teacher can give and score her own tests, but in a city system she can only interpret the test results obtained from the city bureau of educational research as a part of her investigation of a given case. Similarly, in cities where there is a child-guidance clinic, the visiting teacher works with the clinic by entering the child there, arranging the school life of the child during the period of his visits to the clinic, and often handling the follow-up work after the clinic is through with the case.

The records of every child are usually filed in the school office, where they are accessible to everyone likely to be interested, the principal, the visiting teacher, and the classroom teachers. All records should be kept in such form that further entries can be made at any time. Furthermore, these records, as well as other school records, should accompany pupils transferred from one school to another in the same or another school system. For example, if James is a problem case and goes to a new school where a visiting teacher is employed, the visiting teacher from the first school sends his recorded history with the results of her investigations to the new school, and the visiting teacher in the new school takes up James's case just where the old school left off. If the records are carefully designed and accurately kept, they will show the child as a mental, physical, and social whole so that no time will be lost either by James or by his new teachers.

The visiting teacher of the Francis W. Parker School gives all the intelligence tests and works with the teachers in searching for special abilities and disabilities of pupils in so far as tests can reveal them. By comparing the results of her testing program with the results of achievement tests, the teachers are able to check up their work and to balance their curriculum so that children can be transferred either to or from the school without difficulty. The visiting teacher works in close co-operation with the high-school teachers as well as with the elementary-school teachers and gives subject tests

if the high-school teachers feel the need of testing a child or a group of children.

In the Francis W. Parker School the visiting teacher is also in a position to study the relation of the teacher to her work and to assist the administrative officer in adjusting the teacher's load to her ability and energy. Often a teacher who has a heavy teaching schedule can be given a student assistant who is especially interested in the course. With the establishment of proper relations between teacher and student assistant, both can profit a great deal. The teacher can be relieved of certain routine duties, and the student becomes acquainted with the actual work of the course as he never could in any other way.

In this brief discussion it has been possible to give only glimpses of the visiting teacher's work. What has been presented is not simply theory but rather results of certain theories which have been applied to the actual administration of the work of such a school officer. It would be too optimistic to expect a visiting teacher to obtain maximum results in every field of endeavor in which she engages, but it is not too much to expect results in correcting abuses affecting children which will justify the continuance of her office. If visiting teachers will put this thought into their creed and reflect the thought in their deeds, only good can result for the children of the communities in which they work.

SUMMARY OF READING INVESTIGATIONS (JULY 1, 1924, TO JUNE 30, 1925). IV[1]

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INTELLIGENT INTERPRETATION

Factors affecting comprehension.—Six studies were reported that consider the relation of five specific factors to comprehension, namely, size of school, a summer's vacation, vocabulary, form in which informational material is presented, and rhetorical quality.

1. *Size of school.*—Coxe and Orleans (11) determined the reading achievement of thirteen thousand children in New York State through the use of the Monroe Standardized Silent Reading Tests and found that, with the exception of the eighth grade, "the graded village schools obtained higher average scores than did the two- and three-teacher schools and that these in turn obtained higher scores than did the one-teacher schools." When comparisons were made of the 1923 and 1924 records of thirty classes, it was found that the one-teacher schools had made the largest average gain; the schools with four or more teachers had made the second largest average gain; and the two- and three-teacher schools, the smallest average gain. The unusually large gain made by the one-teacher schools may be accounted for, in part at least, by the fact that they averaged lowest in 1923 and consequently had the largest opportunity for notable gain.

2. *A summer's vacation.*—Morrison (44) gave the Haggerty Reading Examination, Sigma I, Tests 1 and 2, to eighty-one pupils in Grades I–III, inclusive, on June 15, repeating the tests on September 16. He also gave the Thorndike-McCall Silent Reading Scale, Form 2, to 119 pupils in Grades IV–VIII, inclusive, on the same dates. The records for each of the first three grades showed a gain amounting to one-third of the normal progress for a year. With re-

[1] Reprints of this series of articles may be purchased from the Department of Education, University of Chicago, for 25 cents each.

gard to Grades IV–VIII, inclusive, "there was no significant change in the ability to comprehend the meaning of the printed page, as measured by the Thorndike-McCall Silent Reading Scale."

3. *Vocabulary.*—Beall (4) determined the frequency of the words in three primary reading tests, namely, the Haggerty Reading Examination, Sigma I, Test 1, and the Stanford Achievement Test, Primary Examination, Form A, Tests I and II. Vocabulary tests of the multiple-response type were then constructed from the words in each reading test after the elimination of those which appeared among the first thousand words of Thorndike's word list. The reading tests and the vocabulary tests were given to 103 third-grade pupils, and the correlations between the respective scores were determined. The correlations between the scores on the Haggerty test, the Stanford Test I, and the Stanford Test II, and the scores on the corresponding vocabulary tests were .488, .545, and .477, respectively. These results indicate "that the pupil's knowledge of the vocabulary used in these tests is a factor that influences his performance upon the standardized tests used in this study."

As a part of a larger study, Lester (34) found the correlations between the results of the Whipple Vocabulary Test given to four groups of pupils and the achievement of these pupils in English, Latin, French, geometry, and history as determined by their class marks. The correlations were positive in every case, varying from .2278 to .6427. The mean correlations by subjects follow: English, .5812; Latin, .3014; French, .2278; geometry, .3049; and history, .6427. "These high correlations of the results of vocabulary tests with ability in English and history are in accordance with a priori judgment that the student who can read with ease will get the best results in subjects in which the ability counts for most."

4. *Form in which informational material is presented.*—McKee (39) carried on an investigation among 650 elementary-school pupils in Grades IV–VIII, inclusive, to determine the relative comprehension of information presented in story form and information presented in cold-fact form. The story material included two selections from Chamberlain's *How We Travel*, entitled, "Traveling by Train" and "How the Mail Is Delivered." The factual material consisted of the content of these stories but with the story element eliminated. The

two types of material contained essentially the same vocabulary and were presented to the pupils in mimeographed form. The comprehension tests consisted of series of questions which could be answered correctly in only one way. Two groups, each made up of three hundred pupils, were organized on the basis of results secured through the use of the Thorndike-McCall Reading Scale, the two groups being of equal average reading age. Group A read the cold-fact form of the material pertaining to traveling by train, while Group B read the story form of the same material. As the pupils found the answers to the questions, they wrote them below the mimeographed material. The test was repeated two days later without having the reading material at hand. The groups were then reversed, and the same procedure was followed with the second selection. The results showed decided superiority in favor of the group that read the material in factual form. When comparison was made of the accomplishments of sections that differed in range of reading age, there was usually, although not always, superiority on the part of the group that read the material in factual form.

5. *Rhetorical quality of selections.*—Fishback (19) selected for experimental use a passage entitled, "Silkworms and Silk," which seemed in his judgment and in the judgment of forty undergraduate and graduate students to fulfil all the requirements of well-written English. This selection was then modified as follows: synonyms were substituted for fifty-two words used in the passage; the selection was somewhat disorganized by changing the position of two paragraphs; and short sentences were combined into longer sentences. More than two hundred fourth- and fifth-grade pupils were asked to read the passage, one half of them reading it in the original form and the other half reading it in the modified form. Comprehension of the passages read was determined by means of a series of fifty-four true-false statements. The general reading abilities of the two groups of pupils represented were determined through the use of the Monroe Standardized Silent Reading Test and found to be approximately equal. A comparison of the scores made on the tests showed higher scores in the case of the pupils reading the well-written passage.

Effect of specific methods and training techniques on ability to inter-

pret what is read.—During the year 1924–25 at least four studies were reported concerning methods of improving comprehension.

1. *Use of standardized and informal tests.*—Dransfield (17) employed a "technique of teaching through standard and informal testing." In the course of eight months nine different forms of the Thorndike-McCall Reading Scale and thirty-two informal reading tests were used. "Initial and final tests were given to ten experimental and ten control classes," and the progress of each group was determined. "The experimental classes made much greater progress than did the control classes." They also made much greater progress than they had made in previous years. "This progress greatly exceeded the typical progress made in typical schools" and "exceeded even more the progress made by pupils of like mental capacity in other schools. . . . . Further, more than usual progress was made in such other subjects as we were able to measure with standard tests" (17: 744).

Kimmel (30) gave practice reading tests to a group of high-school Freshmen during the opening week of a semester. The results indicated "a relatively high rate of reading with a relatively low index of assimilation when compared with available data for other classes." As a result of a study of the scores made on the practice tests and as a result of supervision of the study habits of the pupils, it was decided to emphasize the assimilation of content material rather than to increase the speed of reading. Accordingly, the pupils were asked at frequent intervals to prepare reproductions of certain passages that had been read. "Later the papers were exchanged, and the pupils checked one another's papers as the instructor read the ideas which should have been reproduced. These written exercises tended to center the pupils' attention more directly on their reading efficiency. The fact that they were permitted to check one another's papers appealed to members of the class and thus helped to create an interest in overcoming individual weaknesses" (30: 48).

During the course of the semester five forms of the Thorndike-McCall Reading Scale were used in checking progress in comprehension. The significant fact revealed was a steady increase in the scores on the successive forms of the test given. "The average T-score on

the last form shows an increase of 18.8 points over the average T-score on the first form." The results of both the informal tests and the Thorndike-McCall Reading Scale showed consistent improvement throughout the course in the ability of the pupils to grasp the meaning of what they read.

2. *Training in organization, retention, and vocabulary-building.*—Alderman (1) carried on an experiment among 1,933 pupils in Grades IV–VIII, inclusive, to determine the improvement made in comprehension as a result of training given for thirty minutes each day throughout a semester. Training in organization was given two days each week by requiring the pupils to select the important idea from each paragraph and to organize the ideas selected around the central topic or problem. Training in retention was given two days each week by having the pupils "read the selection carefully for the purpose of picking out the essential facts." The pupils were then tested by means of a series of questions, the answers to which were written. One test was also given each week on the important facts read during the week. A wide range of reading matter was used. "Great care was taken to master the meaning of all new words which the child would have occasion to use in his actual work with books of a content nature."

The value of the three types of training provided was checked, without the use of control groups, against normal progress as indicated by the norms for the Thorndike-McCall Reading Scale. The tests were given in September and February. A comparison of the records showed that, "of the 1,933 pupils who took part in the experiment in reading, 1,409 gained; 122 were no better readers than at the beginning of the semester; and 402 actually lost in reading ability." A detailed study of the pupils who lost in reading ability showed that the pupils who gained least "were in the upper quarter in reading ability when the Thorndike-McCall tests were given in September." The general conclusion which these facts justify is that systematic training in reading of the types used in this experiment, if not continued too long, is valuable in the case of the majority of the pupils in Grades IV–VIII, inclusive. They suggest, on the other hand, that these types of training may be inappropriate or even undesirable for pupils who rank high in reading ability at the beginning of a period of training.

3. *A variety of methods used in a state-wide campaign.*—In October, 1923, and in May, 1924, the Stanford Achievement Tests were given to approximately sixty-five thousand elementary-school pupils in Maryland under the direction of the State Department of Education. The scores made by the pupils were very unsatisfactory, as reported by Simpson and Stern (53). "Less than one-third of the pupils in the one-teacher schools made scores equal to, or higher than, the standard, and only slightly more than one-third of the pupils in the two-teacher schools made scores as high as the standard for their grade. In the larger schools, Grade IV was the only grade above standard. The lowest grades (Grades II and III) had smaller proportions of pupils above standard than had the other grades in these schools" (53: 595).

The authors report the constructive steps taken in various counties and the results achieved during the year. Brief statements referring to some of the methods that were adopted follow: (*a*) A meeting of the first-grade teachers in Baltimore County was held early in November to study the results of the October tests and to determine the causes of poor results. (*b*) Teachers of all grades throughout the state made similar studies to determine how the pupils of the respective grades could overcome their difficulties and attain the May standards. (*c*) Lists of difficulties were published and studied in Caroline County. (*d*) The silent-reading bulletin published by the State Department of Education was sent to the teachers of Caroline County two weeks before a November meeting, for the purpose of securing helpful suggestions for use in the discussion at the meeting and for use in improving instruction. (*e*) Teachers in various sections of the state agreed upon reading abilities that should be cultivated and definite goals that should be accomplished in each grade. (*f*) Objective standards for judging improvement in instruction were supplied to the teachers in February by the State Department of Education. (*g*) Demonstration lessons were organized, each of which was followed by a conference. (*h*) Practical helps were provided by the supervisors throughout the year.

As indicated earlier, tests were given again in May. The results showed that "more than 50 per cent of the pupils in Grades II, III, IV, and V in the graded schools were above standard and that the pupils in Grades VI and VII were not far from the goal. Even the

one-teacher and the two-teacher schools, handicapped because of the large number of untrained and unskilled teachers, made more than normal progress" (53: 595–96).

Investigations of study procedures in work-type reading.—Two studies have been reported which relate more or less specifically to study procedures in work-type reading.

1. *Methods of motivating the study of history.*—Gatto (22) carried on an experiment among 277 eighth-grade pupils to determine the effect of two methods of motivating the reading of history, namely, emphasizing the importance of groups and emphasizing the significance of individuals in history. The selection used was an adapted passage from Schevill's *Political History of Modern Europe.* Comprehension was measured by means of a series of factual questions based on the passage read. These questions were given as a pretest to determine the pupils' familiarity with the facts contained in the selection. Furthermore, the average reading ability of the two groups that participated in the experiment was determined through the use of the Monroe Standardized Silent Reading Test. In the interpretation of the scores made when the factual questions were presented after instruction, allowances were made for the differences revealed by the pretest and the reading test.

A comparison of the comprehension of the two groups showed that those who read after the importance of groups in historical development had been discussed did better on the average than did those who read after the importance of individuals in history had been emphasized. The author warned against final conclusions on account of the presence of factors that were not controlled.

2. *Progress of pupils in mastering assigned material in general science.*—Beauchamp (5) made a study to determine the extent to which the progress made by pupils in elementary physical science is constant. The material of the course consisted of a series of teaching units. Each unit was "divided into problems, each problem developing some major division of the unit."

In order to check the progress of the pupils, a series of performance tests was organized which included the following types of activity: "(1) finding answers to thought questions based on some principle presented in the problem, (2) finding answers to review

questions based on critical points in the problem, (3) making problem summaries, (4) making sentence outlines, (5) reconstructing drawings, showing different views or reversing the order of operation, (6) making drawings from descriptions in text, (7) framing questions the answers to which constituted a summary of the main points of the problem, and (8) organizing the entire unit" (**5**: 15–16).

The experiment was carried on in two freshman classes of the University High School, University of Chicago, each of which included twenty-two pupils. On account of absences, final conclusions were based on the work of twenty pupils in one class and nineteen in the other. "Each pupil was provided with a mimeographed text and a list of tests for each unit. In one section, ... called Section A, the pupils were not allowed to take their texts from the room, while the pupils in Section B were not thus restricted." Similar instructions were given to the pupils of both classes concerning the procedure which they were to follow in doing their work. As the test papers were handed in, three records were kept: "(1) the day on which each test was completed, (2) the number of attempts necessary to obtain a satisfactory paper, and (3) the number and types of errors made on each test." The study continued for a period of fifty school days.

An analysis of the records justified the following conclusions.

1. There are a great many factors influencing the rate of progress.
2. The relative progress of the pupils in a class is not constant.
3. When the work is done entirely in the classroom, as in the case of Section A, the amount of shifting is greater than if outside work is done, as in the case of Section B. This may be due to the fact that the pupils who fall behind have no opportunity to catch up with the others through additional outside work.
4. The difference between the pupils within a class, in terms of the number of tests satisfactorily completed, increases with the length of time. The differences are greater in Section B than in Section A, probably on account of the extreme competitive spirit in Section B [**53**: 30–31].

EXTENSIVE READING VERSUS INTENSIVE READING

Values derived from extensive reading in general science.—Curtis (13) carried on a series of investigations to determine the value of extensive reading in general science. Brightness quotients and the Dvorak General Science Scales were used for the purpose of pairing

control and experimental groups. The extensive reading was carried on under three conditions: (1) as a regular course outside the regularly scheduled program of studies, (2) as part of the usual required work in general science, and (3) as a privilege in addition to the regularly required work in general science.

The results of the experiment were measured in various ways. A form of the Dvorak General Science Scales was used to measure general achievement, and a special test was used to determine growth in scientific attitudes. In addition, three questionnaires were used in checking results. The first was employed to ascertain whether the extensive reading resulted in an increase of interest in science and in the reading of science magazines. The second aimed to secure statements from the pupils of the values which they thought they had derived from the experiments. The third secured from the parents statements of the values derived by the pupils from the assigned work.

The results of the experiments indicate that "extensive reading of scientific literature serves to increase individual achievement in general science." It "stimulates the desire of some pupils to proceed further with the study of science in the school," and it "contributes to the scientific attitudes of the individual but not to the extent secured by a small amount of class time devoted specifically to the teaching of scientific attitudes." Curtis' investigation is open to the criticism that much of the data is based on questionnaires which required personal opinions in the answers.

SPEED OF SILENT READING

High fixation-accommodation rates promote speed of reading.—Wager (66) determined the fixation-accommodation rates of a group of adults and studied the correlation between these rates and the rates of reading of the same subjects. The correlation was high, indicating that, as the fixation-accommodation rate increases, the speed of reading increases, all other things being equal.

Training in speed of silent reading through the use of two definite procedures.—Burton (9) directed a study in the schools of Hamilton County, Tennessee, during the school year 1923–24 for the purpose of improving ability in silent reading in Grades III–VIII, inclusive.

Early in the school year the pupils were given either the Otis Group Intelligence Test or the Illinois General Intelligence Test and both the Monroe Standardized Silent Reading Test and the Thorndike-McCall Reading Scale. For a period of eight weeks the teachers spent thirty minutes daily in carefully directing the reading activities of the pupils. The reading materials used were simple selections from a wide variety of sources ranging "from the newspaper to the Bible." The schools were assisted in securing an adequate supply of books by exchanges among themselves and through the co-operation of the Chattanooga Public Library.

Two types of training were given. The first was training in rapid silent reading, which included the following steps: arousing the interest and the curiosity of the pupils, discussing the difficult words before a selection was read, urging the pupils to increase their speed of reading and to compete with their previous records, counting the number of words read in a given interval, and checking comprehension by means of questions. The second type of training consisted of quick-perception exercises, which were given for ten minutes daily in the lower grades and twice a week in the grades above the fourth. The results of the study showed that there was marked improvement in practically all the grades in each type of school, namely, one-teacher schools, two-teacher schools, and schools with three or more teachers.

CHILDREN'S INTEREST IN READING

Interest in required and elective reading.—In a study among 2,599 junior and senior high school pupils of Franklin County, Ohio, Weiser and Ashbaugh (68) found that pupils usually selected as their first choices books which they were not required to read. Furthermore, the books on the required lists were usually read less frequently by the pupils as a group than were many books that were not required.

THE NATURE AND CONTENT OF READING MATERIALS

Vocabularies of pre-primer, primer, and other first-grade materials.—Gates (21), assisted by Hemke and Van Alstyne, made a study of the number of different words in pre-primer, primer, and other first-grade materials of twenty-one systems of beginning reading. The

median number was 250, the range being from "99 or less" to 900. As the authors pointed out, "there are no experimental data indicating an optimum number." Possible criteria for use in selecting words for first-grade materials follow: "kind and number needed to tell the stories, ... utility for furthering some type of word mastery, ... utility for establishing familiarity with words most frequently found in general reading matter, ... utility for meeting the demands of attractive books (other than primers) for children of about seven years, ... utility for immediate practical needs as in reading signs, posters, labels, etc., ... interest of children in the ideas, things, or events represented by the words, ... ease of learning and later recognition" (**21**: 587–88).

Reading interests compared with the content of school readers.—In order to determine whether the content of school readers harmonizes with the interests of children, Grant and White made two extensive studies. In the first study (**24**) they analyzed the content of fifteen primary readers. The methods employed were similar to those used by Stone in an earlier study, but books were chosen which are more generally used in classrooms today. In the second study (**25**) six hundred first-, second-, and third-grade children in various sections of the country were asked to answer the following questions: "(1) What story, of all you have read and heard, do you like best? What story do you like next or second best?" In each study the percentage frequency of each type of reading material was determined. The results of the two studies were then compared in tabular and graphical form (**25**). The comparisons revealed marked differences between children's interests and the content of readers. These differences are explained in part by the authors in terms of the large emphasis on literary material during recent years. Whatever the cause, there is need of more detailed and accurate studies of the problems involved.

Calibrating reading material as to difficulty of comprehension.—Kyte (**32**) reported the results of an investigation to determine the appropriateness of reading material for third-grade pupils. The materials used were fifty-four poems and prose selections which were thought to be desirable for a third reader. The method adopted in determining their appropriateness involved three steps: Each of four elementary-school principals and the city superintendent of Berke-

ley, California, selected a representative paragraph or unit of each of the fifty-four selections and prepared a question for it which would test a pupil's comprehension of the meaning of the passage. The passages and the questions were given to the third-grade pupils of four schools in Berkeley during four different periods. The test papers were carefully scored, and the percentages of correct, wrong, and omitted answers were determined for each passage.

An analysis of the results led to the following conclusions: 40 per cent of the material originally chosen for the third reader was too difficult; some of the selections were probably too easy for children in the second grade, and others were probably too difficult for children in the fourth grade; the "arrangement of selections according to supposed difficulty without being tested would be chaotic as compared with arrangement after the testing of the material." These findings are very significant. They emphasize the need of the scientific study of reading materials before they are included in readers, but the methods employed by Kyte must be refined before thoroughly reliable results can be secured.

AN EXPERIMENT IN MORAL EDUCATION

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For several years it has been the policy of the teachers in the Grant School, Los Angeles, to give special thought and study to some one phase of education during each school year. One year was devoted to the improvement of instruction in music, another year to the improvement of instruction in arithmetic, and another year to the improvement of instruction in reading. Each successive year showed improvement in the pupils' mastery of the subjects especially studied, improvement in the general work of the school, and improvement in the teachers' technique of making special studies. Moral education was the subject especially considered during the school year 1924–25.

The Grant School is situated in a residential section of the city of Los Angeles. The great majority of the residents of the district are native-born Americans, professional and business people, well cultured and ambitious for their children. The parents are highly interested in the welfare of their children and are loyal supporters of the school.

Through the co-operative efforts of the teachers in making the special studies cited, a strong but democratic faculty organization has been developed. The teachers are organized in the regular school faculty, presided over by the principal, for the purpose of dealing with matters of general administration, instructions and directions from the offices of the superintendent and the principal, and other routine matters. They are also organized into what is known as the All-Faculty Club, the purposes of which are more social than professional. The functions of this club are to arrange and manage all faculty social activities, such as parties and picnics; to make visiting and substitute teachers feel comfortable and at home; and to care for the courtesies due members of the faculty in cases of illness, marriage, leave of absence, etc.

The third form of teacher organization in the Grant School is the teacher groups. The kindergarten and the first- and second-grade teachers make up the first group, the third- and fourth-grade teachers the second group, the fifth- and sixth-grade teachers the third group, and the teachers of the special subjects—home economics, agriculture, manual training, etc.—the fourth group. Each group is presided over by a chairman, elected by the members of the group. Each group meets regularly for the purpose of considering the problems in the grades or subjects represented. At these group meetings all matters of importance to the group concerned, such as course of study, methods, subject matter, and even policies of administration as they may affect the work of the teachers and the pupils involved, are acted upon. Often people outside the group, such as supervisors and special teachers, are called in to throw light on some problem that is under consideration. The principal is ex officio a member of each of the groups and attempts to attend all group meetings. The four teacher-group chairmen constitute what is called, for want of a better name, the Principal's Cabinet, and meet regularly once a month with the principal.

The children participate in the government of the school through their student organization, the Grant School Safety Committee. This committee is a purely democratic organization, patterned after the suggestions contained in the booklet issued by the Automobile Club of Southern California called, *Safety, a School Project.* Each room above Grade IV B elects representatives to the Safety Committee. The committee works in conjunction with a faculty adviser, who is especially trained for such work. The Safety Committee meets once a week for the purpose of handling all matters involving safety, a chairman, elected by the group, being in charge. "Safety" is construed in its broadest sense and involves not only safety to life and limb but safety to morals, time, materials, rights of others, etc. The actual work of the Safety Committee is done through subcommittees and safety patrolmen. The subcommittees have under their jurisdiction certain student activities, such as playground duty, yard-cleaning, care of cafeteria, hall duty, and traffic duty. The patrolmen have definite duties assigned to them either by the Safety Committee chairman or by a subcommittee chairman. Any direc-

tions, suggestions, or instructions from the committee intended for the children of the school are brought to the attention of the children by means of mimeographed bulletins or Safety Committee speakers who go from room to room with their messages. In addition to their committee assignments, the classroom representatives on the Safety Committee are expected to keep the classrooms informed with regard to the work of the Safety Committee and to keep the committee informed with regard to the wishes of the classrooms.

As previously stated, the patrons of the school are deeply interested in its activities. Through the efforts of the teachers in keeping the people of the community in close touch with the work of the school, the parents have developed a feeling that the school is rendering a service worthy of support. Close contact between the school and the parents is maintained principally through the Parent-Teacher Association.

In conformity with the custom of the Grant School, plans were made early in the autumn of 1924 to study some phase of education during the school year 1924–25. After much thought and discussion on the subject, it was decided to give special attention to the problem of moral education. This problem was decided upon not because the moral tone of the school district was low in comparison with that of the rest of the city or county but because it was felt that very little of a definite character had ever been done in this field. The teachers of the school felt that, since they had had some experience in making studies of this nature and that since moral education, character-building, manners and morals, conduct, citizenship, or whatever one wishes to call it, seemed to be a phase of education of primary importance on which but little information of a positive nature could be found, something might be done on the subject that would be of value to the school and to education at large.

The responsibility for developing a tentative plan of procedure was placed in the hands of the Principal's Cabinet. After a plan was decided upon, each member of the cabinet reported it to his group. When each group had made suggestions and alterations, the cabinet again undertook the formulation of the program of study. After several re-writings, the plan was finally accepted at a general faculty meeting. In this manner each teacher participated in planning the

study and, as a result, was eager to see the program put into effect and was more than eager to do everything possible toward making it a success.

It should be mentioned that somewhat more than a month was spent in formulating the plan of study. During that period the teachers developed a real interest in the problem. They discussed moral education whenever they met, reported opinions gathered from others, and kept the librarians busy searching for material on the subject. The principal experienced some difficulty in keeping certain of the enthusiastic teachers from launching into the work before the general plan of procedure had been determined.

The plan for the study consisted of five major points: (1)concept of moral education, (2) problem, (3) purpose, (4) method of attack, and (5) program of procedure.

1. *Concept of moral education.*—It was felt that there must be agreement among the teachers as to the meaning of moral education. After looking through dictionaries, encyclopedias, texts, etc., the teachers decided to try to develop their own idea of the meaning of the term. The following seemed to be a simple but general concept that would serve as a working basis: Moral education in the elementary school is the developing of habits, ideals, and attitudes that will tend to make the child a citizen of outstanding character.

2. *Problem.*—The following was accepted as a general statement of the problem: Education should develop habits, ideals, and attitudes of citizenship. The development of these habits, ideals, and attitudes should begin in the elementary school.

3. *Purpose.*—The purpose of the study was to develop habits, ideals, and attitudes of citizenship in the Grant district through school, home, and community activities and to secure material that might prove of value to others interested in the subject.

4. *Method of attack.*—This phase of the plan of study included many of the points already touched upon in this article and, in addition, the establishing of general and specific objectives, the developing of activities, etc.

5. *Program of procedure.*—This section of the plan of study gave in detail all the activities that might be applied in an experiment in moral education.

The first activity called for in the plan of procedure was a sort of citizenship survey. Each teacher was asked to prepare a list of outstanding instances of poor citizenship among the children of the school and to make suggestions as to how she thought these could be met and overcome. The reports were checked and summarized by a subcommittee appointed for the purpose. From the subcommittee's report objectives were developed.

Through the entire year attention was given to available literature on moral education. Certain teachers visited the libraries and secured materials in the form of books, magazines, and pamphlets, which were brought to the attention of the faculty through book reviews at teachers' meetings or through notices placed on the bulletin board.

Through committees the teachers worked out forms to be used in making case studies of poor student citizens. It was hoped that these case studies would throw some light on the causes of poor citizenship in time to be of assistance in developing objectives. It took considerable time to construct the forms to be used and a great deal more time for each teacher to make the five case studies allotted to her. Nevertheless, this activity had good effect, since those constructing the forms found it necessary to do considerable thinking on the subject before worth-while forms could be developed. Furthermore, in making the case studies, the teachers discovered many points that might have a bearing on citizenship, manners and morals, ethics, conduct, and the like, since they found it necessary to go into the homes and learn something about the family histories, economic conditions, housing conditions, cultural background of the parents, etc. The case studies, though not completed in time to serve the purpose called for in the program of procedure, were of great value to the teachers.

In developing the plan of study, in reviewing the literature on the subject, in constructing lists of the outstanding instances of poor citizenship on the part of the children, and in developing case-study forms, the teachers furnished themselves with a fairly good background in moral education.

The program of procedure called for special activities on the part of the student body as a means of placing definite responsibilities on

the children, the feeling being that an important factor of good citizenship is ability to meet responsibilities. The Safety Committee, which acts as the student-body government-participation organization, was placed in charge of these activities. The Safety Committee, as previously pointed out, is primarily a citizenship-training organization. As with all well-organized student-government organizations, its work in citizenship training is almost beyond measure. The special piece of work assigned to this committee in addition to its regular safety activities was to care for the discipline of the entire school during the noon hour—to patrol the yard as a means of preventing accidents, to select desk officers before whom all offenders were to be brought, to keep on file accurate data regarding the desk officers' activities, and to make a monthly report to the principal in order that he might in turn compile a report for the entire school. Space cannot be given to the results of this innovation. Suffice it to say that the noon-hour difficulties decreased to a minimum.

Each month a general letter was sent to every parent in the district having children in the Grant School. The letters went directly from the principal and contained, among other things, at least one paragraph on some topic dealing with education in manners and morals. Before the first general letter was written, ten topics to be dealt with were selected, special consideration being given to the particular phase of the study to be emphasized at the time each topic was to appear. These letters gave the parents information, directions, and suggestions regarding such phases of manners and morals as the meaning of good citizenship, the meaning of moral education, responsibility as training for citizenship, what the parent can do to co-operate with the school in teaching manners and morals, attendance at motion-picture shows, and late hours for school children.

Courtesy clubs were organized by the teachers, each child in the room being a member of the courtesy club until by some discourteous act his name was dropped from the membership list. He was reinstated when by some courteous act he proved himself again worthy of membership. When informed of this idea by means of the general letter, several parents formed family courtesy clubs in their homes.

Efforts to correlate manners and morals with other subjects of the

curriculum met with considerable success. Many worth-while projects along this line were developed by the teachers. Language, composition, drawing, home economics, reading, agriculture, and especially the social subjects appeared to lend themselves best to training in morals and manners.

The citizenship part of the report card was used throughout the year as a basis for moral training. The citizenship subjects listed on the card were carefully analyzed by the various classes. For example, compositions on courtesy in the school, in the home, in public places, etc., were written by the pupils in the upper grades. At the suggestion of the supervisor of the third and fourth grades, the best of the compositions were given titles and subtitles and were then mimeographed and bound into small booklets for use in the lower grades. A similar set of individual compositions was given subtitles but not main titles. These were also mimeographed and bound. After the lower-grade children had read the personal stories and titles with their teachers, they read the set without titles and attempted to supply appropriate titles. These stories proved very successful for many reasons. The stories were written by friends and relatives of the little children; the characters involved were therefore known to the readers. The stories were written by children; hence they were of real interest to children. In addition, there was the fun of trying to decide whether a particular story should be entitled "Cleanliness," "Honesty," "Courtesy," or "Dependability" or given the name of one of the other factors of good citizenship shown on the report scale.

A self-rating scale for measuring the manners and morals of elementary-school children was developed by the teachers. This scale was graded in difficulty for use in the various grades. Scale A, for use in the first and second grades, was in very simple language and was in the form of questions to be answered by "Yes" or "No." Scale B, for use in the third and fourth grades, was more complicated. Scale C, for use in the fifth and sixth grades, had eight main divisions, each with a number of weighted subdivisions. The teacher and the children studied each division and subdivision and discussed it from every angle. When it was felt that the division or subdivision was clear to the children, they were asked to rate themselves. Each

child understood that this was a self-rating scale for his personal use only. The ratings he gave himself were strictly private, and not even the teacher was to see the paper. After the rating was completed, each child was instructed either to destroy the sheet or to take it home, as he saw fit. The object of this experiment was to assist the child in understanding such terms as "personal appearance," "honesty," and "courtesy"; to assist him in analyzing these terms; to help him to measure himself; and to impress upon him the fact that he must be honest and fair with himself, something that certain of the pupils could not yet do if they felt that their ratings of themselves were to be seen by others. Hundreds of the scales were used by the upper-grade children and their parents. Parents came to the school for forms in order to rate their own children and to compare their ratings with those made by their children. Parents even reported that in some instances the children were rated more honestly by themselves than by their parents.

Perhaps the most worth-while feature of this entire experiment was the work accomplished by the parents. What they did in assisting with this study and experiment is a slight indication of what intelligent and willing parents can do for any school if they are given the opportunity. This project clearly shows that principals and teachers often fail to utilize one of the greatest forces at their disposal for the furthering of education.

From the very start, the Parent-Teacher Association offered every possible co-operation in developing this study. Money for nutrition work, for visual-education purposes, and for beautifying the school and grounds—a most necessary factor in teaching good citizenship—was had for the asking. Time was no object with the parents when it came to assisting in the work of the school; many of them spent hours in preparing papers and other materials on manners and morals. At every opportunity officers and members of the association asked for information as to the progress being made. Programs in keeping with the project were planned, and speakers who were authorities on citizenship training were secured to speak at the meetings. In ways too numerous to state, the parents co-operated with the teachers in developing methods and devices for improving the instruction in moral education.

At least two very worthy studies on phases of moral education made by the parents should be cited at this point.

To a committee of parents and teachers was assigned the task of listing home responsibilities for the children of the Grant School district. This was done because, when the study was planned, it became evident that the children of this school had too much leisure time and too few responsibilities. Ten parents and three teachers comprised the membership of this committee. A very able woman was made chairman, and the work was apportioned to the different parents, the teachers acting in an advisory capacity. After eight meetings, much library work, consultation, telephoning, and letter-writing, covering a period of more than four weeks, the committee presented a report, listing certain duties appropriate for children living in the Grant School community. This report was placed in the hands of every parent in the district. Unquestionably, the various home responsibilities listed in this report proved of value to the community, but the realization on the part of those parents who prepared the report that they really had something to offer the school was a thousand times more worth while than was the report itself.

Another committee of this nature was made up of ten mothers, each of whom acted as chairman of a subcommittee composed of herself and four other mothers, making a total of fifty mothers serving on the committee. The work of this committee was to conduct an investigation that would result in a report containing suggestions for making the home more attractive and beneficial to the child. The first report of this committee offered seven suggestions. Each of these seven suggestions was placed in the hands of a subcommittee, whose task was to study the particular suggestion in detail. This committee submitted seven reports after three months of study and investigation. Three of the reports have been sent to the homes; the other four will be sent as soon as the facilities of the school permit.

Such co-operation as that shown by the parents of the Grant School community is an indication of what can actually be hoped for when teachers and principals realize that parents are as interested in the education of their children as are the teachers and are equally willing to render effective co-operation if but given the opportunity.

THE SCHOOL PSYCHIATRIC CLINIC

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In 1922 Dr. Hazel Hansford, psychologist of the Southeastern Hospital for the Insane, Madison, Indiana, established a psychiatric clinic in the public schools of Columbus as a part of the field activities of the hospital. The clinic has been operated since that time as a co-operative experiment by the Southeastern Hospital for the Insane and the school system of Columbus. While the Indiana School for Feeble Minded Youth at Fort Wayne maintained a traveling clinic prior to 1922, the Southeastern Hospital for the Insane and Dr. Hansford deserve the credit for establishing the first regular school psychiatric clinic in Indiana.

The Columbus clinic has been conducted for a sufficient length of time to show that there is need in all communities of the state for careful study and special school treatment of exceptional, subnormal, and abnormal children. While the results of Dr. Hansford's work have not yet been tabulated and carefully studied, it is possible at this time to describe the experiment, to give a few case records, and to discuss some of the results.

Before the establishment of the clinic, a majority of the elementary-school children had been given either the Binet test or a group intelligence test. Most of the exceptional children had been identified. Careful records of these were on file, and some adjustments had been attempted. As a result of regular medical inspection over a period of years, the physical condition of every child in the school system was known. Dr. Hansford was given access to all the school records and received the full co-operation of the school physician and of all the teachers, principals, and supervisors. Cases for special examination and study were selected by conference with the superintendent of schools and the grade supervisor. Card records showing the result of each examination and the consequent recommendation were kept in the school office and formed the basis for

such adjustments in the treatment of the cases as the school facilities permitted. In general, this procedure has been followed during the three years the clinic has been in existence. While the clinic has been held at irregular intervals because of the press of other duties, Dr. Hansford has studied several hundred cases, and a number of favorable adjustments of school procedure in the handling of exceptional children have resulted from her work.

The maladjusted children in the public schools, those who are not adequately served by the conventional school procedure, have been roughly classified by Dr. Hansford into five groups: (1) children of superior intelligence, (2) neurotic children of normal intelligence, (3) borderline children, (4) borderline children showing emotional instability, and (5) feeble-minded children. In the discussion of these groups case records secured by Dr. Hansford in Columbus, together with a few records from other sections of the territory of the Southeastern Hospital for the Insane, will be used as illustrations.

1. Children of superior intelligence constitute about 15 per cent of the school population. Out of this group must come our original thinkers. If our country is to continue to progress, it must select its political and industrial leaders from this group. While it is generally assumed that superior children will look out for themselves in the school world, many of them, as a matter of fact, are distinctly injured by plodding along at the rate set for the children of average intelligence. A superior child should be advanced at a rate sufficient to tax his abilities and to hold his interest. The three following cases will illustrate some of the problems of this group.

Case A was a six-year-old girl of very superior intelligence. While she was mentally able to do the work of the third grade, she was enrolled in the first grade and did not have enough work to keep her busy and out of mischief. She performed her school work with no visible effort and was able to do the work of advanced classes. The revised Binet test showed that she had a mental age of eight years and two months and an I.Q. of 124.

Case B, eleven years and four months old, was a boy of very superior intelligence and was enrolled in Grade VI B. His teacher considered him one of the brightest pupils in the room. His mental age was found to be sixteen years, giving him an I.Q. of 141. He had

a remarkably high vocabulary score. This boy had a pleasing personality, was frank and open in his manner, was not afraid to tell what he knew, and did not seem conscious of his mental superiority. It was recommended that he be rapidly accelerated as he had the ability to do high-school work.

Case C was a seven-year-old boy of very superior intelligence enrolled in the second grade. The revised Binet test showed his mental age to be ten years and eight months. His range of information was found to be unusual, and he was very much interested in current events. During the examination he gave his opinion of the Shenandoah investigation, talking familiarly of Colonel Mitchell, Lakehurst, etc.; he thought it "too bad" that the commander had to go out when he knew there was danger from storms. His reading ability was that of an eleven-year-old child. It was recommended that he be advanced as rapidly as possible until he had reached a grade where the course was reasonably difficult for him.

2. Most children of normal intelligence adapt themselves to the traditional school. However, some of them show neurotic tendencies, which are often danger signs that society should not ignore. All such children should be carefully studied in order that corrective habit-training and guidance may result.

Among the symptoms denoting neurotic tendencies may be noted the following: (*a*) seclusiveness, (*b*) lack of frankness, (*c*) excessive daydreaming, (*d*) rebellion against authority, (*e*) excitability, (*f*) marked timidity, (*g*) marked nervousness, (*h*) night terrors, (*i*) persistent truancy, (*j*) fabrication, and (*k*) ideas of persecution. The following case illustrates the need of careful school handling of individuals having neurotic tendencies.

Case D, a boy seventeen years old, had been committed to a state hospital for the insane on the complaint of his father. The commitment testimony stated that the boy was untruthful, emotional, and hysterical; that he was nervous and did not concentrate; and that he had injured both parents, denying afterward that he had done so. Although the boy had been committed to the state institution, he was never sent. After being arrested and placed in jail, the boy was paroled to his mother, who took him home. A visit was made to the home, and the mother was interviewed. She said that the boy had

an uncontrollable temper and was irritable and seclusive. He seemed to have an intense hatred for his father and was always ready to quarrel with him. His mother said that on one occasion he had knocked his father down. The public school was next visited, and the boy was interviewed. He emphatically denied any manifestations of a disordered mind, such as hallucinations, obsessions, or dream states, and questioning failed to disclose anything in the nature of a paranoid trend or a delusional system except the bitter feeling toward his father. He felt especially hard toward his father, since, according to his notion, his father had publicly disgraced him by having him adjudged insane and keeping him in jail for several days. When asked if he did not consider it an unusual thing for a boy of his age to knock his father down, he replied that he had not knocked his father down but had merely knocked the wind out of him and he had sat down. The boy added that, if the same situation again arose, he would hit his father harder. He said that his father had beaten him unmercifully ever since he had been a small boy and had never allowed him the privileges which other boys enjoyed. His desire to attend high school had been opposed at every turn, and the father objected to the boy's earning money for himself. This led to quarreling every time the two met, and often the father beat the boy. The boy said that he had taken his last beating and that he intended to go home for a few days to see his mother and then to gather up his possessions and leave. He thought that he could work his way through high school and would no longer have to depend on his home. He spoke very affectionately of his mother and was much concerned because his father was coming between them. The principal of the high school was interviewed. He reported that, while the boy was somewhat peculiar, he did good school work and was interested in athletics. The boy was said to have had no social difficulties outside his home. It was recommended that he be put under the guidance of some public-spirited man who would advise and encourage him in his trouble.

3. Borderline children can often meet the requirements of the lower school grades with apparent success, but sooner or later they reach a point where the work of the conventional school is too difficult for them. They become discouraged and generally acquire a dis-

like for school work. A feeling of inferiority results, which may mark them for life. The traditional school does not provide such children with suitable developmental opportunities. Often the reprimands, humiliations, and failures become almost unendurable and result in abnormal personality and behavior tendencies. The school should either release such children from bondage or provide them with means of successful achievement adapted to their abilities. The following are examples of borderline children.

Case E was a girl of borderline intelligence. She was referred to the clinic by a seventh-grade teacher. She was found to be fourteen years and eight months old with a mental age of ten years and eight months and an I.Q. of 73. She had an enlarged thyroid, and her tonsils were enlarged and inflamed. About six months later this girl was again referred to the clinic because of her abnormal behavior. She had been acting peculiarly for a long time, and the climax was reached when she tattooed "K.K.K." on her forearm. The teacher discovered the blood oozing down her arm, but the girl seemingly felt no pain. The school doctor was called to dress the arm, and, when she applied iodine, the girl did not flinch. Her school record showed that she had been in difficulty a number of times. At one time an attempt was made to send her home, but she refused to leave her seat, and the probation officer had to be called to remove her. It was also reported that she had slapped a classmate in the assembly room. When the girl was interviewed, she was very much discouraged because her favorite reading material had been taken from her. She seemed to bury herself in *True Stories*, and her mind was filled with accounts of girls who had married millionaires or who had done other wonderful but improbable things. She said that, if she could not read *True Stories*, she wished she could die, that she would be willing to be locked up in jail. She was not interested in her school work and said, "When I see all these lessons in front of me, it makes me weak." It is probable that for five or six years her school work had been too difficult for her and she had become thoroughly discouraged. The case was diagnosed as borderline intelligence with hysterical attempts to draw attention to herself in compensation for the sense of failure which had been with her for a long period because of her inability to succeed. It was recommended that every effort

be made to develop a better attitude toward school work and to minimize the feeling of failure. The effort of the teacher in this direction would be worth more than any academic work that the girl could be taught. It was suggested that she be placed with larger girls and allowed to take special work in the domestic-science department. After the last examination the girl was given individual work in school and was personally supervised by the principal, as he was the only one who could do anything with her. The result was not very satisfactory. One day she came to school with sleigh bells on her garters but removed them when requested to do so. She also began ogling the principal and giggling in his presence, and she reported to the other girls that she was the principal's pet. Her conduct became so objectionable that she was taken to the Juvenile Court, and, because of her attitude there, the judge sentenced her to the girl's school at Clermont, Indiana.

Case F was a sixteen-year-old girl with a mental age of ten years and eleven months and an I.Q. of 68. Her association-ability was not up to the ten-year standard. When given the school test used by the Indiana School for Feeble Minded Youth in out-patient clinics, she was found to have fourth-grade reading ability, third-grade geography ability, fifth-grade spelling ability, and sixth-grade arithmetic ability. She insisted that the Pacific Ocean bounds the United States on the east and the Arctic Circle on the west and that the largest rivers are the Ohio, the White Sea, and the Red Sea. Her writing was very poor, and the words "camera," "journal," "customer," "materials," "impossible," and "exclamation" were spelled "camora," "jernal," "custumar," "matiaial," "imposable," and "esclamation." Her reactions to the Healy-Fernald and Pintner form boards were of the trial-and-error class. Her great ambition was to be a trained nurse. She was good natured, stolid, and willing. She tried hard to learn. The diagnosis showed her to be a high-class moron. It was recommended that she be excused from regular school duties, as she was wasting the time of her teachers as well as her own time. It was also recommended that she be trained to do some simple task, as it was thought that she might become self-supporting if she were given reasonable supervision.

Case G was a twelve-year-old boy of borderline intelligence. He

was found to have a mental age of eight years and eight months according to the Porteus revised Binet test. His I.Q. was 70. He was doing very inferior work in the fifth grade. The test showed noticeable irregularity. His basic year was V, with five successes in VI, five in VII, three in VIII, one in IX, four in X, one in XII, and one in XIV. This marked irregularity is very significant. His neurological condition was very defective. His face was asymmetrical, skewing to the left; the tongue protruded in a median line; and the eyelid droop was almost equal to a ptosis. There were constant involuntary twitchings of the head and trunk, and he had a marked speech defect. The boy was nearsighted and had poor muscular co-ordination and a noticeable tendency toward stereotypy. He could not hear well, and he was reported to have had a double mastoid operation at the age of three months. It was recommended that the boy be referred to a mental and nerve specialist. The school authorities had had difficulty in doing anything for the boy, as the parents had attempted to force them to accelerate him and had insisted that he was one year farther advanced when he moved to the community than he later proved to be.

4. Borderline children showing emotional instability include many individuals who will become social menaces and institutional inmates. If these individuals were identified early in childhood, if their instabilities and antisocial tendencies were studied, if they were trained in self-control and industry, if they were given occupational training suited to their abilities, society would be saved much trouble and expense.

5. Feeble-minded children are frequently found in the schools, but ordinarily no provision is made for their training. Some of these children should be sent to institutions; others could be given special training, which would make them at least self-sustaining and harmless members of society. No serious attempt has yet been made to solve the problem of Indiana's feeble-minded school children. The following are typical cases.

Case H was classed as a middle-grade imbecile. He was tested in 1919 and showed an I.Q. of 57. He was re-examined in 1923, and his I.Q. was then found to be 43, his mental age being four years and eight months and his chronological age being ten years and ten

months. He was reported to have learned nothing since he entered the first grade in the autumn of 1919. The rote memory test was the only one passed in Years VI and VII, and in Year V the only successes were in the color and age tests. His teeth were very far apart, irregular, and notched. His eyes had a dull, uncomprehending look, and his movements were awkward. He did not know his birthday or his father's given name. He was said to possess an even, mild disposition. As the public schools are not equipped to do anything for such an individual, it was recommended that he be placed in the State School for Feeble Minded Youth, where he should spend the rest of his life. It is interesting to note that this boy had two feeble-minded sisters, one feeble-minded brother, and one insane brother; his father was alcoholic; his mother was insane; and he had one or more insane uncles on his mother's side.

Case I was a high-grade imbecile. She was referred to the clinic in 1924 by a second-grade teacher as a feeble-minded child. She was found to be eleven years and eleven months of age with a mental age of four years and eight months and an I.Q. of 39. She was first tested in 1923, when she had a mental age of five years and an I.Q. of 46. Her first response to any question was usually, "I don't know." She flatly refused to attempt the test of the fifth year, saying, "I don't want to." She showed marked resistiveness throughout, smiling in a silly way but steadfastly refusing. She finally repeated two of the commands, saying that she had forgotten the other one. She changed the subject by saying, "We've got lots of kids in our room." She was very shy and had no self-confidence. Several times she volunteered something irrelevant after answering, "I don't know." She was again tested in May, 1925, and showed an I.Q. of 37. The only thing that could be recommended in her case was institutional care.

Case J was a boy who was rated as a high-grade moron. He was referred to the clinic by a sixth-grade teacher, and his school record showed that he had repeatedly failed in the fourth, fifth, and sixth grades. He was an inferior-looking boy of fourteen years and three months. By the Porteus revised Binet test, his mental age was nine years and eight months; his I.Q. was 68. He showed marked irregularity in this test, which is indicative of psychotic disturbances. He was unable to read even the simplest sentences, and he miscalled

words which he should have learned in the second grade. When given a problem to solve, he could not read it. He read "two police coats" instead of "two pencils cost" and "at 15 cents a year" instead of "at 15 cents a yard." The vocabulary tests showed better results than had been expected. His performance on the Healy-Fernald and Pintner form boards showed a pure trial-and-error method with apparently little learning until the second trial, which was done with ease and no errors. His comprehension was poor, and his stream of thought was retarded. He could not repeat the names of the months in order, and he failed to give correct rhymes after having been given good examples. His method of discrimination between weights was good, but he could not select correctly. He was proud of the fact that he had worked on a farm the previous summer and had earned $7.00 a week. The boy was left-handed, and his speech was markedly infantile. It was recommended that he be given a careful physical examination and encouraged to keep up his interest in farm work.

The clinic has resulted in the solution of a number of school problems. Among the devices adopted are the following, which may be easily used even in traditionally organized schools without special classes or unusual facilities for the care of exceptional children: (1) rapid advancement of superior children, (2) the placing of subnormal children in classes better suited to their ability, (3) special courses for "peculiar" children, (4) institutional commitment for extreme cases, (5) school guidance in the selection of high-school courses, (6) intelligent basis for the issuance of school exclusions and work permits. In addition, the clinic clearly brings to light many problems which the traditional school has ignored completely and points the way to the adaptation of the school course to the needs and tendencies of the individual pupils.

SUMMARY OF ARITHMETIC INVESTIGATIONS (1925). I

G. T. BUSWELL
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A monograph summarizing 320 articles and books reporting investigations of the methods and results of teaching arithmetic was published in June, 1925, by the Department of Education, University of Chicago, as Supplementary Educational Monograph No. 27, entitled, *Summary of Educational Investigations Relating to Arithmetic*. This monograph was prepared by Charles H. Judd and the present writer under the direction of the Research Committee of the Commonwealth Fund. It furnishes a complete summary through 1924 and includes six references for the early part of 1925. In a series of two articles the writer will present an annotated bibliography of the investigations relating to arithmetic which were reported during 1925 and a summary of the findings of these investigations. The bibliography is limited to published materials which are quantitative or critical in character. References to teachers' editions of practice materials and textbooks are given only where such materials are based on published research studies. Courses of study are not included. For the sake of completeness, the six references for 1925 which appeared in the monograph are repeated and are marked with asterisks.

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Reports a classroom experiment based on a diagnostic procedure.

One of the interesting preliminary facts revealed by the preceding bibliography is that there is an apparent revival of interest in the scientific study of problems relating to arithmetic. According to a

table in a recent monograph (9: 3),[1] eighty-three scientific studies relating to arithmetic were published during the four-year period from 1913 to 1916; seventy-three studies were published during the quadrennium 1917–20; and sixty-six studies were published during the quadrennium 1921–24. Following this apparent decline of interest in the subject, there were published during the year 1925 fifty-eight studies, almost as many as in the previous four-year period.

STUDIES RELATING TO THE CURRICULUM IN ARITHMETIC

Thirteen of the studies published in 1925 contain material which is of direct interest to those concerned with curriculum-making in arithmetic. Six of these studies contain more or less extended summaries of scientific investigations available for the guidance of those engaged in preparing courses of study. In addition to the extensive summary given in the monograph which this series of articles supplements (9), the summary provided by the Third Yearbook of the Department of Superintendence (56) and the summary in an issue of the Research Bulletin of the National Education Association (36) will be found particularly helpful. The materials summarized in the last two references are organized under the same general plan, being grouped according to the following list of problems.

1. When should formal arithmetic begin?
2. What are the socially useful processes?
3. According to what criteria should drill be organized?
4. What is the best procedure for building up ability to handle concrete or reasoning problems?
5. What have psychology and experimental education to contribute?
6. What help is secured from standard tests?
7. What is the method of curricular determination in arithmetic? [56: 36–37]

Schorling (46) has summarized twenty-nine studies which throw light on the objectives for the junior high school. Sister Callixta (10) has made a historical summary of those studies which deal with objectives in arithmetic. Brown (5) has summarized a series of outstanding investigations which should be known to all who are concerned with the curriculum. The amount of time and energy being devoted to careful summaries of scientific materials furnishes a strik-

[1] The numbers in parentheses refer to the bibliography, the first number indicating the reference and the second number the page or pages.

ing example of the way in which curriculum-makers are turning to objective investigations for the basis of their work.

Two investigations deal directly with the objectives of the curriculum. After a careful, critical summary of the trends revealed through a historical survey, Sister Callixta (10) outlines four major objectives as follows:

> (1) To secure letter-perfect results in the basic arithmetical skills. . . . . (2) To give a certain amount of knowledge concerning the business transactions of the world and the quantitative relations needed for insight into human activities in all phases of life. . . . . (3) To develop a reasonable attitude toward problem situations. . . . . (4) To develop ideals of accuracy, honesty, industry, self-reliance, persistence, and the like, through the proper presentation of subject matter chosen in accordance with present-day human needs [10: 27–28].

A more elaborate attempt to determine proper objectives for arithmetic in the junior high school is illustrated by Schorling's study (46). Schorling evaluates a long list of specific objectives according to the following criteria: (1) the support given in some scientific investigation, (2) the acceptance of the objective in a majority of the seven junior high school textbooks examined, (3) the use of the objective in conventional practice as revealed by two scientific investigations, (4) the inclusion of the objective in the final report of the National Committee on Mathematical Requirements, and (5) the approval of the objective by a "competent jury" of five leaders in the field of mathematics and five leaders in the field of general education. The various objectives are grouped in four divisions, according to whether they are related to attitudes, concepts, abilities, or information. Under each of these divisions is a basic list which includes all objectives approved by three of the five criteria. Supplementary lists are presented which include the remaining objectives.

Four investigations deal directly with the problem of the junior high school curriculum. These include the study made by Schorling (46); a critical article by Breslich (3), in which a combination of arithmetic, algebra, and geometry is recommended to meet the needs of junior high school pupils; a study by Hinkle (23), who cites the fact that seventh-grade pupils have not mastered the fundamentals of arithmetic sufficiently and emphasizes the need of distributed reviews in the junior high school period; and an article by Colwell (13), who stresses the lack of new subject matter in arith-

metic adapted to the social and economic needs of junior high school pupils.

Three studies are devoted chiefly to critical discussions of certain changes which have been made in the curriculum in arithmetic as a result of the work of psychologists and educators. Upton (52) shows how standardized tests which do not take into consideration the social needs of the pupils may serve to retain in the curriculum material which has little value. Smith (47) points out the harmful influence of certain standardized tests. He also criticizes, from the standpoint of the mathematician, several proposals relating to methods of teaching. Condell (14) has written a reactionary criticism of many progressive tendencies in arithmetic, in which he shows himself to be entirely out of touch with the scientific spirit of present-day education. The article is of value chiefly as an illustration of the type of objections which curriculum-makers are likely to encounter when they attempt to revise the curriculum.

An attempt to illustrate the general technique of curriculum construction has been made by Herriott (21), who gives a rather formal example of how it should be done. It is doubtful whether those engaged in the major revision of the curriculum can make use of the technique described. It is altogether probable, however, that many minor attempts at curriculum revision will follow the plan.

TEXTBOOKS AND PRACTICE EXERCISES

Few analyses of textbooks are reported in the literature for 1925. Schorling (46) made an analysis of seven junior high school textbooks in mathematics but devoted most of his attention to algebra and geometry rather than to arithmetic. His analysis shows, however, a rather astonishing degree of variation in the methods of combining arithmetic, algebra, and geometry. The place of arithmetic in the seventh, eighth, and ninth grades is still a matter of experiment. Another type of textbook analysis is reported by Knight (26), who made a comparison of the drill materials in the division of fractions offered by five textbooks. His analysis revealed not only a great deal of variation among the five books but also the very significant fact that there are many unit skills involved in the division of fractions which are entirely overlooked in the drill materials in four of the five books analyzed.

The year 1925 witnessed a very substantial capitalization of the results of previous research in the preparation of practice materials. Four sets of materials based on extensive research studies were published. Other practice materials appeared during the year, but they are not included in the bibliography because, in each case, no published account of the method of construction could be found. Osburn (39) has prepared corrective drill exercises for Grades II, III, and IV, which are the result of research studies carried on over a period of years. Washburne (55), with the co-operation of several of his elementary-school teachers, has developed a set of practice books for the first, second, and third grades. His materials are the result of a series of classroom experiments covering a period of five or six years. He has organized the exercises for use by children of different degrees of ability, and he has provided self-correcting devices, keyed practice materials, and frequent tests. In his manual he gives the results of an analysis of the unit skills in the four fundamental processes. Ruch, Knight, and Studebaker (45) have developed a set of practice materials, which include a number of interesting teaching devices. These materials were tested in experimental form before they were published.

The emphasis now being placed on drill materials brings to a focus an important problem in methods. The authors of the materials to which reference has been made have frankly stated that their exercises are for drill, and, with one exception (45), the task of instruction is left to the teacher. The drill offered in the special series was undoubtedly more carefully prepared and tested than was that offered by the great majority of textbooks. Unless correspondingly serious attention is given to analyzing the processes by which children do their work before they begin drill on the various operations, one may expect to find that the drill itself will fix a great many poor habits of work. As has been shown by Knight (26), drill materials may be built according to certain scientific investigations. If the schools continue to be supplied with a carefully prepared body of superior practice materials, there would seem to be needed equally carefully prepared explanatory books, which will guide the pupil in the setting up of correct methods of work before drill is begun.

[To be concluded]

FURTHER DISCUSSION OF THE TWELVE-MONTH-SCHOOL PLAN

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In the February number of the *Elementary School Journal*, my article on the proposed twelve-month-school plan was discussed by the editor, and he has given me the opportunity to explain my views more fully.

In his discussion of my statement that there is much which a child should learn outside of school through home training, the editor used figures to show that, under the year-round-school plan, the school child would have more than three thousand waking hours during the year outside of school. The editor considers this ample time for any home training necessary. The "cold, unsentimental fact" is that the mother does not have anything like that many hours of freedom which she can devote to the special training of her children. I am looking at the matter from the point of view of the people whose daily schedule is regulated more or less by the whistle and the time clock—wage-earners. This is the class of people who, I believe, furnish the larger percentage of children to be educated in the public schools of the cities.

The difficulty lies in the fact that the leisure hours of the mother do not coincide with those of the child in school. In order to make my point clear, it is necessary to review, as briefly as possible, a day in an average home, in which the father is the breadwinner and the mother is usually the cook, housemaid, nurse, and seamstress, and often laundress as well.

First, breakfast must be prepared and often lunch packed for the father, who probably leaves for work before the children arise. Then all is hurry and often confusion, even in the best regulated homes, especially if there are several children. Those of school age must be fed and made ready for school. Often there are babies who demand a share of the mother's attention. Obviously, there is no time for any special training in the morning.

At about half-past three the children return from school. Just released after several hours of confinement, they want to run and shout, to play games requiring physical exercise of more or less violence. This is natural and necessary to their well-being. They are not in a receptive mood, and about all the mother can do at this time is to supervise their play to prevent accidents or serious mischief.

The father returns from work at about half-past five. As the evening meal is the most important one of the day, the mother's time and attention are required in its preparation for at least an hour, longer if she has many interruptions. After dinner, when the evening work is finished, the parents may have an hour or an hour and a half with their children. In the case of the older children this time must be devoted to study.

Not all of Saturday can be given to the children, though the wise mother will use much of it, whether the children are assisting her in her household tasks or whether they are playing. I am old-fashioned enough to believe that children should attend church services on Sunday, in company with their parents. Sunday afternoon, then, is left for "walks and talks."

No matter how the hours are counted, it is a matter of fact that children and parents have little time together during the school months. I am reminded of the oft-told story of the little boy who wanted his half of the bed out of the middle. The school hours are out of the middle of the day, and the time at home is so broken up that there is little chance for home training of any kind.

I believe I realize as well as anyone that many parents do not take advantage of the time they have with their children or make any effort to guide their activities during the summer vacation, but, because some parents are negligent, is it right to deprive more fortunate children of their privileges, thereby forcing all to the same standard? Is the school justified in taking over entirely the responsibility of caring for the children, thus becoming a sort of day nursery for the benefit of delinquent parents?

I am certain that a great many families living in tenement and apartment buildings, where children have no playground but the street, could live elsewhere. Also I am convinced that in many cases in which both parents are employed the family would be better off,

economically as well as socially, if the mother remained at home, using the father's earnings with intelligence.

Many parents do not try hard enough to control their children or to furnish suitable occupation for their vacation hours. It is not always an easy task to do this. It is a matter for thought, patience, and prayer, but it can be done, and it remains the duty of those who brought the children into the world.

We make laws for the protection of animals. In Indiana we have a law to prevent the improper housing of bees. These are good laws, but we allow selfish and ignorant parents to rear their families in unsuitable surroundings where the children have no chance to develop normally, and we do nothing to help or to hinder. We then fill our prisons with the results of that kind of living and wonder why. The twelve-month-school plan will not solve the problem. It will be of very little help, because it will simply increase the irresponsibility of this class of parents. Given the year-round school, they will soon be asking for a longer school day. In fact, I recently heard a mother express the wish that school were held until five o'clock so that she might have her afternoons free. If the schools are to undertake the entire guardianship of the children and be of real help in keeping them employed, it will be necessary to have a longer school day and to have sessions on Saturday, at least. If the time at home under the proposed plan is sufficient for the child to absorb all the home training necessary, it is also ample for the neglected child to get into much malicious mischief.

This is not a diatribe against schools. I most heartily agree with the editor that there is little danger of too much school education, but what is the necessity of so much haste?

When we take away the summer vacation, we are robbing childhood of something very sweet and precious, something that can never be made up in later life. All too soon our children reach the age when they must take up the burdens of life, and the time for care-free play is gone forever.

For those unfortunate children to whom vacation means nothing but aimless loafing on the streets, let there be some form of summer school, but let it be optional and on a tuition basis, so that those parents whose inability and negligence make such a school necessary may have the opportunity to pay the expense.

Educational Writings

REVIEWS AND BOOK NOTES

Theory of education.—The attitude of the determinists that we are all pretty much what was born in us is faced and its implications are duly weighed in Volume One of *The Foundations of Education*[1] by J. J. Findlay, professor of education in the University of Manchester. If we grant that the race might be improved by the methods of the eugenist and that such improvement is desirable so far as it is feasible, the fact remains that each generation appears in the world with a capital of inherited traits, which leaves much to be desired, and humanity has to make what it can of the world, in spite of the numerous bars sinister in its lineage. After all, the world seems to have accumulated in the arts and sciences a great deal of cultural material, which must be the product of nurture. "The past cannot be inherited except through steady effort and discipline. . . . . Each generation has to reshape for itself the whole structure of conscious thought and feeling, of adaptation, which a million years of struggle and hope in our ancestry have put at our disposal" (p. 31). Here, then, is the task of education and the essential purpose of the educative process.

Our problem is to apply the accumulations of past wisdom to the shaping of the individual child. "There is only one aim in education: *the nurture of the human spirit*" (p. 51). "The aim of schooling, in all its occasions and pursuits, is to help our pupils to see themselves and their neighbors in the light of the universal" (p. 58). That is the whole matter in brief, but it is well to particularize. So we have various constituent values, such as the body-mind; art; morals; intelligence or, to summarize again, "harmonious development."

Then follows an essay on harmonious development, in which Stanley Hall's periods of development are found to be very useful.

We now turn to the organization of education and encounter first "The Institutions That Foster Education": the family, intimacy and sympathy, class, religion, vocation, culture, teaching, and the state. A classification of schools by types follows. This is more concrete, and we find that English schools exhibit great variety in their kinds and workings. Under the caption, "Teachers, Professional and Lay," the teacher's function receives some attention, but the chapter is largely devoted to comments on teachers' organizations in England.

[1] J. J. Findlay, *The Foundations of Education*, Volume One. New York: Henry Holt & Co., 1925. Pp. xii+346. $2.50.

A chapter on "The Economics of Education" begins promisingly in some real economic discussion, but it quickly falls into financial description and from that into comment on several current fiscal issues in England. The comment, however, is interesting and informing. Chapters on "The Oversight of Schooling," "Advisory and Reporting Functions," and "Education Authorities, Their Composition and Duties" are what the titles imply.

The work is much the kind of effort which was common in America a generation ago, an essay founded on extremely vague generalizations, followed by the author's running comment on current issues and occasional reference to confirmatory statements or passages, drawn now from some member of the Freudian company, now from a circular of a board of education, now from a poem. The citations to American educational literature are to William James, Stanley Hall, Nicholas Murray Butler (*Meaning of Education*), John Dewey, and the United States Bureau of Education report for 1909 (*Government by Influence*). Of course, the work is not in any sense a justification of its title. It is interesting to contrast Findlay's work with that of Chapman and Counts. The latter takes its departure from an extended discussion of a body of scientific principles and then employs these principles for the illumination of concrete and definite educational problems.

There is perhaps none of our fields more in need of cultivation at the present time than is the field of educational theory, but a useful publication must be something more than philosophy or psychology and assuredly more than comment on current events.

H. C. MORRISON

Differential education.—"One large city collects pupils whose mental tests show exceptional brightness into one class, *where each may go his fastest.*" This is an "innovation" duly discovered and solemnly reported as late as the summer of 1923 by the Institute for Public Service, being one of the results of its search after "educational departures of interest." It is to be hoped that this discovery is about the last echo we shall hear of the theory which has been guiding educational reorganization for the last half-century or so and which accounts for our euphoneous reference to certain classes of children as "slow."

In view of the established facts and technique of contemporary applied psychology, it will have to be established once and for all that varying the rate of progress over an identical course of study—or, more accurately, attempting to do so—is no true educational differentiation. As was pointed out in these pages a year or two ago by another reviewer, "if intelligence tests show genuine differences in mental capacity, the school must meet these differences by a genuine modification of its work. . . . . A genuine difference in capacity can hardly be met by a simple quantitative variation of work through a flexible time program" (Vol. XXIII, p. 148).

Toward this differentiation of content and method we are today beginning

to make progress. Educational differentiation, with all of its ultimate implications of distinctive curriculum, method, textbooks and equipment, buildings and teaching staff, is now definitely getting under way, and, to compensate for the comparative slowness of its start, the trend is now giving promise of gaining momentum as it moves forward. We shall soon have a literature of differential pedagogy, establishing in practice the implications of differential psychology.

In the development of these new techniques we began, interestingly enough, at the bottom. There are available two or three manuals and a number of official publications dealing with the education of the subnormal or mentally defective. While there exists some periodical literature, and there is to be found some incidental material in works dealing with the whole field of special education, devoted to the problem of training the dull normal or, as we like to call them, "the low I.Q.'s," *Teaching Dull and Retarded Children*[1] is, so far as the reviewer is aware, the first book devoted specifically to the education of the dull as distinguished from the mentally defective.

This book is fairly described in the Foreword as "a record of procedures worked out in actual everyday classroom teaching, and a practical handbook and guide." It comes from the hands of a teacher who has amassed a wealth of experience in the course of years of interested attention to this phase of education in the classroom and is assured a hearty welcome by all who want to learn. It is packed with tried procedure and is rich in illustrative material that any classroom teacher, without stopping to theorize on the whole problem, may apply to a group classified for her as homogeneous and belonging to the lower though normal intelligence level.

In the first chapter, "The Goal," Dr. Inskeep takes the stand that the education of these children must emphasize three H's—hand, head, and heart—and that this goal must be approached by means of attaining the five following objectives: health, social living, vocation, thrift, and the efficient use of leisure time. Turning from this general indication of content to "Teaching Procedure," the title of the second chapter, the author indicates the special usefulness of the following methods in dealing with this group: drill, lessons in appreciation, games, and a modified form of the project.

In nine of the following chapters Dr. Inskeep deals primarily with content but presents in each chapter much experience and many devices by way of method as well as projects which she has employed, all calculated to achieve the results or outcomes that may be expected of this group from work in reading, language, spelling, arithmetic, handwriting, the social studies (two chapters), health, and handwork. The chapter entitled, "The Education of the Hand," illustrates well the detailed descriptions and illustrations, devices, projects, and achievements which characterize the entire volume. The reader will find in this chapter practical suggestions for adapting to dull children work in sewing, cook-

[1] Annie Dolman Inskeep, *Teaching Dull and Retarded Children*. New York: Macmillan Co., 1926. Pp. xx+456.

ing, woodwork, farm and garden work, weaving, rug-making, raffia and reed work, chair-caning, brush-making, leather and paper work, bead work, and modeling. Four chapters of the book deal primarily with method and the application of content and are entitled, "Thrift," "The Appreciation Studies," and "Games," two chapters being devoted to the last topic.

The very practicality of this book, coming, as it does, right from the classroom, makes one wish occasionally for the larger perspective of the student working at a somewhat greater distance from the actualities. Dr. Inskeep means to commend her work when she states in the Foreword that "the teaching procedures that follow are not theories about what should be taught but classroom experiences as to what can be taught." The implication to the disparagement of theory is one not frequently heard among the "practical" people, but the stand is not at all well taken. Sound theory must always illumine and, much more important, validate, good practice as well as give this practice its perspective and its reason for being.

The mere fact that something "can be taught" is no good reason for teaching it, as the contemporary movement for the theoretical derivation of the curriculum is making clear. Theoretical defense of things that "should be taught" is very important indeed. A little more theory might have caused the author of this book to hesitate before asserting with so great an air of finality that the proper educational goal for retarded children is "a trained hand, guided by a thinking head, and controlled by disciplined emotions." A little theorizing might have convinced her that this formula represents a poor criterion for distinguishing between educational goals for the retarded and those for the rest of the population. "Thinking heads" and "disciplined emotions" are desiderata that apply to all of us.

Greater attention to the methods of scholarship would also have enabled the author to make her bibliographies better selected as well as more complete and to enhance her work and generalize her experience by extensive reference to the findings and the practices of other workers in her field. One would like to debate with Dr. Inskeep the need for the new set of objectives which she sets forth categorically without attempt to establish their validity. Why not the semi-official seven with which we are all familiar? Do they not apply to all intelligence levels that may be classified as normal? One would, indeed, like to question her general tone of dogmatic finality in a field in which experimentation and tentativeness would seem to be more in place.

These matters will, however, take care of themselves as the literature of this fascinating field of differentiated education develops. For the present we may well be thankful for a pioneer work formulating the experience gained by a gifted teacher, organized in a workmanlike manner. It is a well-made book, which will be eagerly read by students of special education. It should, as Superintendent Wilson suggests in the Introduction, find a place in teacher-training

institutions. No supervisor or teacher charged with the educational welfare of the group to whose training this volume is devoted, can afford to deny himself the privilege of studying it.

JOHN LOUIS HORN

MILLS COLLEGE

A comprehensive work on the junior high school.—A most significant contribution[1] to the rapidly growing literature of the movement for the reorganization of the public-school system has been made by William A. Smith. The book is comprehensive in scope and will prove to be unusually useful to the many different groups of educational workers who are taking part in developing the newest division of the American system of education.

The first five chapters are devoted to an enlightening consideration of the historical and comparative background of the subject, to a study of the junior high school pupil, and to a thorough review of the conscious purposes of the movement. The last three chapters, which constitute more than one-half of the entire volume, are concerned with the curricular and extra-curriculum activities and with the administrative plans which have been devised to give effect to these purposes.

Chapter i, "Evolution of the American School System," shows how American education, in the course of centuries of evolution from its two-class beginnings of European origin, has emerged in the form of a "graded ladder scheme," in which the main divisions are arranged in sequential order. There is a delightfully clear account of how the dame, town elementary, moving, and district schools of the Colonial and early national periods took shape in the modern graded elementary school and of how the Latin grammar school and the academy developed into the modern high school, with the result that our educational system reaches in a straight line "from the gutter to the university."

The second chapter, "The Organization of School Systems in European Countries," is concerned with "(1) the essentially dual character of these systems, (2) the relatively long period of time they allot to secondary education, (3) the tendency . . . . to provide middle schools for the early adolescent period, and (4) the comparatively short and economical programs which they represent" (p. 45). While more space is given to the larger countries—England, France, and Germany, where the two-class system stands out more definitely and where comparatively little movement of pupils from the lower to the upper schools takes place—a considerable amount of attention is given to the school systems of Denmark, Norway, and Scotland, where the children of all classes may spend the years of elementary schooling together before entering separately on the diversified curriculums of secondary education. In the discussion of the school

[1] William A. Smith, *The Junior High School*. New York: Macmillan Co., 1925. Pp. xiv+478.

systems of each group of countries, the author emphasizes the existence in European educational plans of a well-defined middle school between the elementary division on the one hand and the upper division of secondary education on the other.

Chapter iii, "The Movement for the Reorganization of the American Public School System," presents numerous carefully selected quotations from the writings of the influential committees and distinguished leaders who played outstanding parts in the initiation of the movement. Ample space is given to early departures in practice, such as the elimination of extremes in the length of elementary and secondary education, provisions for gifted children, flexible promotion schemes, and departmentalization in the upper grades, and to the adoption of the first 6-6 and 6-2-4 plans.

Chapter iv is concerned with the outstanding needs and characteristics of junior high school pupils and consists, for the most part, of analytical digests of numerous scientific studies of age-grade status, distribution on the basis of mental ability, and physiological maturation with its many ramifying effects on the nature of the child.

In the fifth chapter, "Major Purposes of the Junior High School," the author is concerned with the prominence of a conscious dominating purpose in the junior high school movement—a new and unique quality in the history of education in America. He presents an impressive array of wisely selected statements of objectives by the men who formulated in a commanding way the purposes of the new movement or who were engaged in reshaping their own school systems in the light of the new ideals. At the conclusion of the chapter an excellent summary of purposes is given.

Recent attempts to define the objectives of education more accurately and to develop the curriculum in a scientific way are reviewed in chapter vi, "The Program of Studies," with the intention of throwing light on the curriculum problem of the junior high school. This part of the discussion makes good use of the pioneer work in curriculum reorganization which was begun in Los Angeles a few years ago under the direction of Professor Bobbitt. The author's analysis is crystallized into seven principles which he believes should govern the making of curriculums for the new school. In the last part of the chapter he analyzes the studies of curriculum organization and administrative practices which have been reported in the periodical literature of recent years.

In chapter vii the author discusses the subject of "Extra-Curricular Activities" and exhibits a convincing sense of their importance in the educational program of the new school and of their essentially intimate relation to the curriculum. He emphasizes the unique value of some organization for the participation of pupils in the government of the school from the standpoint of training in citizenship and envisages a program of experience in extra-curriculum activities that should begin in the junior high school and continue through the senior high school. The author does not fail to stress the significance of such important

administrative provisions as the time schedule of the regular school day, special supervising teachers, and faculty supervision of finances. Several activities, such as class organization, clubs, publications, and the assembly, are selected for more detailed discussion.

Chapter viii, which includes approximately one-fourth of the total number of pages in the book, is devoted to the "Organization and Administration of Junior High Schools." It is a discriminating review of the practices of the best junior high schools throughout the country under the following main headings: grade combination, housing and supervision, admission of pupils, departmental teaching and promotion by subject, the schedule, size of classes and teaching load, ability grouping, supervised study, educational and vocational guidance, teaching staff, administrative and supervisory staff, the building, standardization, and articulation with the senior high school.

The style of the author is unusually clear. It is not difficult to accept the author's statement in the Preface that the material was used in manuscript form in his own classes before it was offered for publication. The book can be used to good advantage by several groups of educational workers. It may well be used as the basic text in university, college, and normal-school classes on the junior high school and as a collateral text in classes on high-school organization, extra-curriculum activities, school administration, and the history of education. Superintendents, principals, and teachers who are engaged in reorganizing the junior high school division of their own school systems will find it a stimulating and helpful guide on many practical questions. The first five chapters particularly, which offer an informing treatment of the promise of the new school for modern American society, should meet the needs of intelligent school-board members and members of parent-teacher associations who are considering the reorganization of the schools in their own communities.

PAUL W. TERRY

UNIVERSITY OF NORTH CAROLINA

The work of the county superintendent.—The rural school is the weak link in our educational system. Almost a century ago Horace Mann waged his fight in Massachusetts against the evils of the district system; yet in many states with large rural areas the decentralizing influence of the district system is still present. While much has been accomplished in the consolidation and standardization of rural schools, in the improvement of equipment, and in the advancement of teacher-training standards, the rural-school problem is by no means satisfactorily solved.

A recent discussion[1] of the rural-school problem analyzes the work of the county superintendent. Both authors have had administrative and supervisory

[1] Julius Boraas and George A. Selke, *Rural School Administration and Supervision.* Boston: D. C. Heath & Co., 1926. Pp. xii+260.

experience as county superintendents, and one has served as a state supervisor of rural schools.

One group of chapters discusses the county superintendent in terms of the growth and outlook of rural schools, the gradual evolution of the office, desirable qualifications, the adjustment of administration and supervision to the conditions of rural life, and office equipment and records. Certain chapters are devoted to the work of the superintendent in the selection, placement, training, and promotion of teachers. The pupil is treated from several points of view: pupil accounting, health work, grading, promotion, and motivation of school work. A final group of chapters discusses the duties of the county superintendent in relation to classroom tests, examinations, standardized tests, selection of textbooks, county graduation, libraries, school boards, and school publicity.

Some of the chapters are rather sketchy; probably this is due to the fact that twenty-four chapters are included within the limits of 251 pages. Two or three examples will serve to illustrate this point. The chapter dealing with the selection of textbooks is only three pages in length; the importance of this problem would seem to justify a more comprehensive treatment. The authors' conception of pupil accounting is reflected in an eleven-page discussion of the records of the census, attendance, and enrolment by grades and ages; constructive pupil accounting involves a great deal more than the mere mechanics of keeping such records. In the discussion of the training of teachers in service, the county institute is treated at some length; extension courses are disposed of in a few lines; and summer work is barely mentioned.

The book contains reproductions of a number of record blanks, a list of office equipment and records for the county superintendent, and a suggested course of study for rural teachers. No bibliographies, suggestions for further reading, or thought-provoking exercises are given in any of the chapters. The appendixes contain score cards for evaluating the rural-school plant and equipment and the work of the teacher. The authors could have greatly aided the reader by including paragraph headings, topical headings, and summary statements. In few cases are the authorities for statements cited.

The volume is more largely an account of the personal opinions and experiences of the authors in the field of rural-school administration and supervision than a scientific analysis based on actual data. The style is so simple and nontechnical that it will be comprehended readily even by the teacher with little training and educational background. The rural superintendent, supervisor, and teacher who have not had the advantage of recent work in a good teacher-training institution should find it worth their time to read the book. Students of school administration and teachers-in-training will find the treatment too sketchy and superficial for their needs.

CARTER V. GOOD

MIAMI UNIVERSITY

The mental and physical characteristics of adolescent girls.—Much of the literature dealing with adolescence has been written without due regard for

the facts. Many of the early assumptions concerning the characteristics of this period have been shown by more recent studies to be unfounded. The popular literature in particular has been open to criticism. Parents and teachers will welcome a book[1] which is sane in its point of view and which is written by one who is familiar with both the psychology and the physiology of the adolescent girl.

The book is brief and is written in non-technical language. The first of the six chapters traces the attitude of society toward the adolescent girl from primitive times to the present. It throws light on certain attitudes which are still prevalent and shows clearly the advancement which has come with modern civilization. Chapter ii is a straightforward discussion of "Puberty: What It Is and What It Means." Here the author brushes aside all the popular misconceptions relating to the adolescent changes and gives a simple account of the phenomena which are taking place and their significance in the life of the girl. Chapters iii and iv deal with "The Abnormal Girl" and "The Delinquent Girl," respectively. This treatment of the abnormal phases of behavior makes the discussion of "The Normal Girl" in chapter v stand out with greater clearness. The final chapter deals with "Training and Education." This chapter will be of particular value to teachers and parents of adolescent girls. The author's plea is for an understanding of the girl through a careful study of her characteristics, not through an attempt to remember one's own childhood experiences. Furthermore, the author insists on a type of education and training which is based on careful study of the facts regarding adolescence and which disregards all popular superstitions. The discussion is sane throughout and very helpful.

The gap between the adolescent and the adult has always been difficult to bridge. It is particularly difficult at the present time because of the very general tendency on the part of adolescent children to behave in an independent fashion and openly to strive for their ideals. The book will do much to create a better understanding of the adolescent child.

G. T. BUSWELL

A French book for little children.—Apparently authors are beginning to realize that it is worth while to consider the young child who is learning French. Madeline C. Smallwood has prepared a primer[2] in which she seeks to satisfy the demand for simple reading matter for English-speaking pupils. Certainly such material is needed, and the author's attempt to provide it is noteworthy.

The book consists of short reading lessons of one, two, or three paragraphs on subjects within the child's interest and experience, such as animals, the house, a flag, a doll, a bridge, a river, the sun, the moon, and the occupations of the days of the week. The author has endeavored to adapt the subjects and their

[1] Winifred Richmond, *The Adolescent Girl.* New York: Macmillan Co., 1925. Pp. xiv+212.

[2] M. C. Smallwood, *Petits Contes faciles.* Baltimore: Williams & Wilkins Co., 1925. Pp. 154.

treatment as well as the language to the child's mind and experience. The title, *Petits Contes faciles*, leads one to look for stories in the book, but the little paragraphs are all descriptive matter. This is a great loss to the children, for they love stories, and their interest would be greatly enhanced if there were a bit of plot woven into the descriptions.

The reading matter is printed on the right-hand page in open-face type; the left-hand page is left blank to allow the child to illustrate what he reads. The author has done this for two reasons: to enlist the interest of the pupil and to help him to associate the French word with the image. This is an excellent device that works well with young children.

At the end of the book there are sixteen poems that are to be used for memory exercises to vary the class work. No vocabulary is included, since the author believes that the meaning of new words should be taught in class by the teacher.

It is unfortunate that the proofreading was not more carefully done. There are cases of misspelled words, careless use of hyphens, omission of accent marks, incorrect division of words at the end of the line, and poor punctuation. Such errors should be eliminated before the book is put into the hands of children.

JOSETTE EUGÉNIE SPINK

A history of elementary mathematics.—The second volume[1] of a series of books by David Eugene Smith is an outstanding contribution to the history of mathematics. The first volume, which dealt with a general survey of the history of elementary mathematics, was published in 1923. Volume II is concerned with special topics of elementary mathematics. While the second volume is primarily for mathematicians rather than for students of education or elementary-school teachers, there are certain parts of the book which are of genuine interest and value to the latter groups. The first 270 pages deal with the history of elementary-school arithmetic. Chapter ii, "Logistic of Natural Numbers," contains very interesting material on the fundamental operations. The development in methods of addition, subtraction, multiplication, and division throws a great deal of light on the methods of teaching these processes which are now used by the school. The chapter also covers the subjects of roots and checks on operations. Chapter iii, "Mechanical Aids to Calculation," describes the development of the abacus, the method of finger reckoning, and modern calculating machines. Chapter iv, "Artificial Numbers," deals with fractions, surds, negative numbers, complex numbers, and transcendental numbers. The remainder of the book deals with mathematics beyond the level of the elementary school, including geometry, algebra, trigonometry, and calculus.

[1] David Eugene Smith, *History of Mathematics*, Volume II. Boston: Ginn & Co., 1925. Pp. xii+726.

A science reader for the upper grades.—Teachers in the elementary school will find a suitable introduction to the general-science course in a book[1] written by Floyd L. Darrow. In schools in which no general-science course is offered, the book will serve to arouse scientific interest and will provide a fund of knowledge concerning outstanding scientific achievements which is worth while in itself.

Starting with the discoveries of primitive men, it carries the story of invention down to the present moment. But it is much more than a book of inventions. It portrays the developments of scientific discovery in the fields of astronomy, chemistry, and physics. Only the biological sciences have been omitted. Knowing that young people are fond of biography, this story of science and invention has been woven about the lives of those who have made it. It has been vitalized with human interest. These stories have been told many times to interested groups of boys and girls, and the author knows that the material is of genuine interest to these young minds [p. iii].

The author has succeeded in writing an interesting account of the various subjects which he has selected and at the same time has presented accurate scientific information. At the end of the book is a section containing special questions bearing on each of the chapters. This list of questions is probably short as compared with the list of questions which the child will ask himself after reading the chapters. The book is one which children in the sixth, seventh, and eighth grades will undoubtedly enjoy.

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

Extra-curricular Activities. Twenty-fifth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1926. Pp. vi+280. $1.50.

FINLEY, CHARLES WILLIAM. *Biology in Secondary Schools and the Training of Biology Teachers.* Teachers College Contributions to Education, No. 199. New York: Teachers College, Columbia University, 1926. Pp. 80.

FLANDERS, JESSE KNOWLTON. *Legislative Control of the Elementary Curriculum.* Teachers College Contributions to Education, No. 195. New York: Teachers College, Columbia University, 1925. Pp. xii+242.

GARRETT, HENRY E. *Statistics in Psychology and Education.* New York: Longmans, Green & Co., 1926. Pp. xiv+318. $3.50.

GARRISON, CHARLOTTE G. *Permanent Play Materials for Young Children.* New York: Charles Scribner's Sons, 1926. Pp. xxii+122.

[1] Floyd L. Darrow, *Thinkers and Doers.* Newark, New Jersey: Silver, Burdett & Co., 1925. Pp. vi+378.

GIST, ARTHUR S. *Elementary School Supervision.* New York: Charles Scribner's Sons, 1926. Pp. xii+308.

HORN, JOHN LOUIS. *The American Public School.* New York: Century Co., 1926. Pp. xx+404. $2.00.

KARPINSKI, LOUIS CHARLES. *The History of Arithmetic.* Chicago: Rand McNally & Co., 1925. Pp. xii+200.

KLAPPER, PAUL. *The Teaching of History.* New York: D. Appleton & Co., 1926. Pp. xx+348.

KLYVER, FAYE HUNTINGTON. *The Supervision of Student-Teachers in Religious Education.* Teachers College Contributions to Education, No. 198. New York: Teachers College, Columbia University, 1925. Pp. viii+186.

The Nation at Work on the Public School Curriculum. Fourth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1926. Pp. 520.

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The Present Status of Safety Education. Twenty-fifth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1926. Pp. xii+410. $1.75.

PRESSEY, SIDNEY L., and PRESSEY, LUELLA COLE. *Mental Abnormality and Deficiency.* New York: Macmillan Co., 1926. Pp. xii+356.

RUSSELL, CHARLES. *Classroom Tests.* Boston: Ginn & Co., 1926. Pp. vi+346. $1.60.

SMITH, DAVID EUGENE. *History of Mathematics,* Volume II. Boston: Ginn & Co., 1925. Pp. xii+726.

SMITH, HARRY PEARSE. *The Business Administration of a City School System.* Teachers College Contributions to Education, No. 197. New York: Teachers College, Columbia University, 1925. Pp. x+130.

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